MHC-D90AV/GR10AV/RX100AV

SERVICE MANUAL

US Model
MHC-D90AV/RX100AV
Canadian Model
AEP Model
UK Model
MHC-RX100AV
E Model
Australian Model
Tourist Model
MHC-GR10AV

- MHC-D90AV/GR10AV/RX100AV is composed of following models.
  As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR MHC-D90AV/GR10AV/RX100AV

	MHC-D90AV	MHC-GR10AV		MHC-RX100AV
		E, SP, MY, EA, HK, IA, TH, JE	AUS	
COMPACT DISC DECK RECEIVER SYSTEM	HCD-D90AV	HCD-GR10AV		HCD-RX100AV
FRONT SPEAKER SYSTEM	SS-L100V	SS-L90V (BLACK)	SS-L100VH	SS-L100V (BLACK)
		SS-L90VH (SILVER)		SS-L100VH (SILVER)
REAR SPEAKER SYSTEM	SS-SR101	SS-SR101 (BLACK)	SS-SR101H	SS-SR101 (BLACK)
		SS-SR101H (SILVER)		SS-SR101H (SILVER)
CENTER SPEAKER SYSTEM	SS-CN101	SS-CN101 (BLACK)	SS-CN101H	SS-CN101 (BLACK)
		SS-CN101H (SILVER)		SS-CN101H (SILVER)

- Abbreviation
  EA : Saudi Arabia model
  MY : Malaysia model
  SP : Singapore model
  HK : Hong Kong model
  IA : Indonesian model
  TH : Thailand model
  AUS : Australian model
  JE : Tourist model

SPECIFICATIONS

General

Power requirements
US, Canadian models:
120V AC, 60Hz
AEP, UK, German, East European, CIS models:
220 - 230V AC, 50/60 Hz
Australian, Malaysia models:
220 - 240V AC, 50/60 Hz
Mexican model:
120V AC, 50/60 Hz
Thailand model:
220V AC, 50/60 Hz
Other models:
110 - 120V or 220 - 240V AC, 50/60 Hz
Adjustable with the voltage selector

Power consumption
US model:250 W
Canadian model:270 VA
AEP, UK, German, East European, CIS models:170 W
Other models:240 W

Supplied accessories

AM loop antenna (1)
FM lead antenna (1)
Remote RM-SE2AV (1)
Sony SUM-3 (NS) batteries (2)
Speaker Cords (5)
Center speaker pads (4)
Cushion (1)

Design and specifications are subject to change without notice.

MINI Hi-Fi COMPONENT SYSTEM

MICROFILM

SONY®

- Abbreviation
  - CND : Canadian model
  - G : German model
  - EE : East European model
  - EA : Saudi Arabia model
  - MY : Malaysia model
  - SP : Singapore model
  - HK : Hong Kong model
  - IA : Indonesian model
  - TH : Thailand model
  - AUS : Australian model
  - JE : Tourist model

PARTS LIST

Ref.No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		*******************************	
	1-475-045-11	REMOTE COMMANDER (RM-SE2AV)	
	1-501-374-11	ANTENNA, LOOP	
	1-501-659-41	ANTENNA (FM) (US, CND, E, SP, MY, EA, HK, IA, TH, AUS, JE)	
	1-501-804-11	ANTENNA (FM) (AEP, UK, G, EE, CIS)	
	1-769-433-11	CORD, SPEAKER (10m) (REAR SPEAKER)	
	1-769-433-21	CORD, SPEAKER (2.5m) (FRONT SPEAKER)	
	3-859-540-11	MANUAL, INSTRUCTION (ENGLISH) (US, CND, E, SP, MY, EA, HK, IA, TH, AUS, JE)	
	3-859-540-21	MANUAL, INSTRUCTION (FRENCH) (CND)	
	3-859-540-31	MANUAL, INSTRUCTION (FRENCH, SPANISH) (E, SP, MY, EA, HK, IA, JE)	
	3-859-540-41	MANUAL, INSTRUCTION (CHINESE) (E, SP, MY, EA, HK, IA, JE)	
	3-859-541-11	MANUAL, INSTRUCTION (ENGLISH) (AEP, UK, EE, CIS)	
	3-859-541-21	MANUAL, INSTRUCTION (FRENCH, SPANISH, PORTUGUESE) (AEP)	
	3-859-541-31	MANUAL, INSTRUCTION (GERMAN) (AEP, G)	
	3-859-541-41	MANUAL, INSTRUCTION (DUTCH, ITALIAN) (AEP)	
	3-859-541-51	MANUAL, INSTRUCTION (DANISH, FINNISH, SWEDISH) (AEP)	
	3-859-541-61	MANUAL, INSTRUCTION (POLISH, RUSSIAN) (AEP, EE, CIS)	
	3-859-948-21	MANUAL, INSTRUCTION (ARABIC) (EA)	
	3-859-949-21	MANUAL, INSTRUCTION (THAI) (TH)	
	4-972-322-01	FOOT (Y) (CENTER SPEAKER)	
	4-981-643-01	COVER, BATTERY (for RM-SE2AV)	
	4-990-187-01	CUSHION (FRONT SPEAKER)	

9-960-910-11

Sony Corporation
Home A&V Products Company

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HCD-D90AV/GR10AV/ RX100AV

SERVICE MANUAL

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HCD-GR10AV

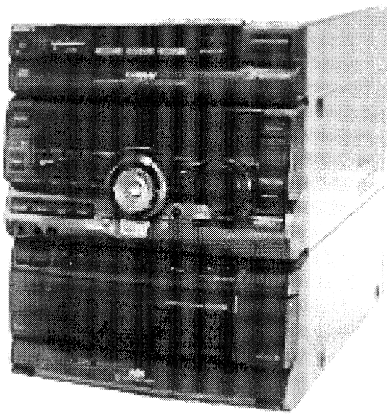


Photo : HCD-RX100AV : US model

HCD-D90AV/GR10AV/RX100AV is the tuner, deck, CD and amplifier section in MHC-D90AV/GR10AV/RX100AV.

This stereo system is equipped with the Dolby Pro Logic Surround system* and the Dolby B-type noise reduction system.
* Manufactured under license from Dolby Laboratories Licensing Corporation.
DOLBY, the double-D symbol DD and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	HCD-H991AV
	CD Mechanism Type	CDM38L-5BD29AL
	Base Unit Type	BU-5BD29AL
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-H991AV
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

For the U.S. model

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm loads, both channels driven, from 70 - 20,000 Hz; rated 100 watts per channel minimum RMS power, with no more than 0.9 % total harmonic distortion from 250 milliwatts to rated output (FRONT SPEAKER).

Amplifier section
(AEP, UK, German, East European, CIS models)

DIN power output	FRONT SPEAKER: 50 + 50 watts (8 ohms, at 1 kHz) REAR SURROUND SPEAKER: 10 + 10 watts (16 ohms, at 1 kHz) CENTER SURROUND SPEAKER: 20 watts (8 ohms, at 1 kHz)
Continuous RMS power output	FRONT SPEAKER: 70 + 70 watts (8 ohms, at 1 kHz, 10% THD) REAR SURROUND SPEAKER: 12.5 + 12.5 watts (16 ohms, at 1 kHz, 10% THD) CENTER SURROUND SPEAKER: 25 watts (8 ohms, at 1 kHz, 10% THD)
Music power output	FRONT SPEAKER: 105 + 105 watts (8 ohms, at 1 kHz, 10%THD) REAR SURROUND SPEAKER: 20 + 20 watts (16 ohms, at 1 kHz, 10% THD) CENTER SURROUND SPEAKER: 45 watts (8 ohms, at 1 kHz, 10% THD)

Amplifier section (Other models)

Continuous RMS power output (U.S. and Canadian models)	FRONT SPEAKER: 120 + 120 watts (8 ohms, at 1 kHz, 5% THD) REAR SURROUND SPEAKER: 12.5 + 12.5 watts (16 ohms, at 1 kHz, 5% THD) CENTER SURROUND SPEAKER: 25 watts (8 ohms, at 1 kHz, 5% THD)
(Other models)	FRONT SPEAKER: 100 + 100 watts (8 ohms, at 1 kHz, 10% THD) REAR SURROUND SPEAKER: 12.5 + 12.5 watts (16 ohms, at 1 kHz, 10% THD) CENTER SURROUND SPEAKER: 25 watts (8 ohms, at 1 kHz, 10% THD)
Peak music power output (except for U.S. and Canadian models)	1500 watts
Inputs	VIDEO/MD IN (phono jacks): voltage 250 mV, impedance 47 kilohms MIX MIC (phone jack): sensitivity 1 mV, impedance 10 kilohms

— Continued on next page —

MICROFILM

COMPACT DISC DECK RECEIVER

SONY®

Outputs	VIDEO/MD OUT (phono jacks): voltage 250 mV impedance 1 kilohms PHONES (stereo phone jack): accepts headphones of 8 ohms or more. FRONT SPEAKER: accepts impedance of 8 to 16 ohms. REAR SURROUND SPEAKER: accepts impedance of 8 ohms. CENTER SURROUND SPEAKER: accepts impedance of 8 ohms. SUPER WOOFER (except for MHC-D90AV): voltage 1 V impedance 1 kilohms

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output	Max. 44.6 μW* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Frequency response	2 Hz - 20 kHz (±0.5 dB)
Wavelength	780 - 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wavelength	600 nm
Output Level	-18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	60 - 13,000 Hz (±3 dB), using Sony TYPE I cassette 60 - 14,000 Hz (±3 dB), using Sony TYPE II cassette
Wow and flutter	±0.15% W.Peak (IEC) 0.1% W.RMS (NAB) ±0.2% W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section (European models)

Tuning range	
AEP, UK, German models:	87.5 - 108.0 MHz (50 kHz step)
East European, CIS models:	65.0 - 74.0 MHz (10 kHz step) 87.5 - 108.0 MHz (50 kHz step)
Aerial	FM lead aerial
Aerial terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

UKV tuner section (East European, CIS model only)

Tuning range	65.0 - 74.0 MHz (10kHz step) Polar stereo

FM tuner section (Other models)

Tuning range	87.5 - 108.0 MHz
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section (European models)

Tuning range	MW: 531 - 1,602 kHz (with interval set at 9 kHz) LW: 153 - 279 kHz (with interval set at 3 kHz)

AM tuner section (Other models)

Tuning range	
US, Canadian models:	530 - 1,710 kHz (with the AM tuning interval set at 10 kHz) 531 - 1,710 kHz (with the AM tuning interval set at 9 kHz)
E2, Australian, Thailand models:	(E2: Without sw tuner E model) 531 - 1,602 kHz (with the AM tuning interval set at 9 kHz) 530 - 1,710 kHz (with the AM tuning interval set at 10 kHz)
Other models:	MW 531 - 1,602 kHz (with the MW tuning interval set at 9 kHz) 530 - 1,710 kHz (with the MW tuning interval set at 10 kHz) SW 5.95 - 17.90 MHz (with the SW tuning interval set at 5 kHz)
Intermediate frequency	450 kHz
Antenna	AM loop antenna External antenna terminal

General

Power requirements	
US, Canadian models:	120 V AC, 60 Hz
AEP, UK, German, East European, CIS, Malaysia models:	220-230 V AC, 50/60 Hz
Australian model:	220-240 V AC, 50/60 Hz
Thailand model:	220 V AC, 50/60 Hz
Other models:	110-120 V or 220-240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
U.S. model:	250 watts
Canadian model:	270 VA
AEP, UK, German, East European, CIS, Malaysia models:	170 watts
Other models:	240 watts
Dimensions (w/h/d)	Approx. 280 x 330 x 366 mm
Mass	
European models:	Approx. 10 kg
Other models:	Approx. 10.3 kg

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

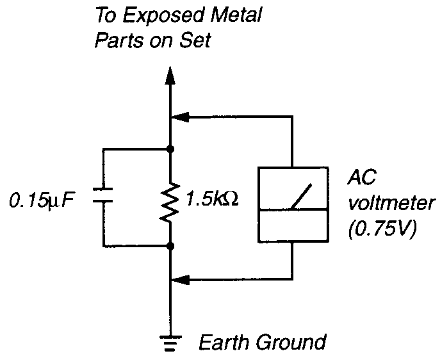


Fig. A. Using an AC voltmeter to check AC leakage.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

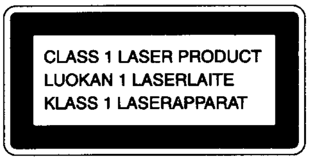
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

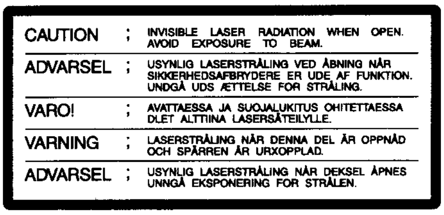
Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.


CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.


CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARO! ; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA DLET ALTTIINA LASERSÅTEILYLLE.
VARNING ; LASERSTRÅLING NÅR DENNA DEL ÅR OPPNÅD OCH SPÅRREN ÅR URXOPPLAD.
ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repain parts.
The flexible board is easily damaged and should be handled with care.

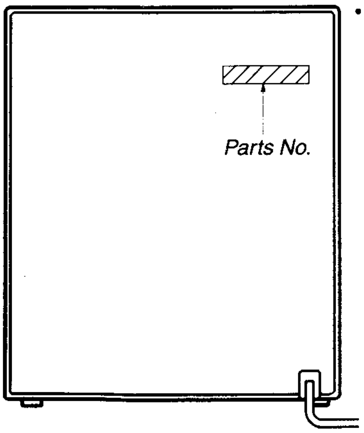
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output three times.

MODEL IDENTIFICATION
— BACK PANEL —



- Abbreviation

CND:Canadian model
G :German model
EE :East European model
EA :Saudi Arabia model
HK :Hong Kong model
SP :Singapore model
JE :Tourist model
MY :Malaysia model
AUS :Australian model
TH :Thailand model
IA :Indonesian model
E2 :Without SW tuner E model
E3 :With SW tuner E model

PARTS No.	MODEL	PRODUCT COUNTRY
4-986-846-0☐	RX100AV: US model	INDONESIA
4-986-846-1☐	RX100AV: CND model	INDONESIA
4-986-846-2☐	RX100AV: AEP, UK, G model	INDONESIA
4-986-846-3☐	RX100AV: EE, CIS model	INDONESIA
4-986-846-4☐	D90AV : US model	INDONESIA
4-988-023-0☐	GR10AV : E3, IA model	INDONESIA
4-988-023-1☐	GR10AV : E2 model	INDONESIA
4-988-023-2☐	GR10AV : SP model	INDONESIA
4-988-023-3☐	GR10AV : JE model	INDONESIA
4-988-023-4☐	GR10AV : HK model	INDONESIA
4-988-023-5☐	GR10AV : AUS model	INDONESIA
4-988-023-7☐	GR10AV : TH model	THAILAND
4-988-275-0☐	RX100AV: AEP model	MALAYSIA
4-988-275-1☐	GR10AV : EA model	MALAYSIA
4-988-275-2☐	GR10AV : MY model	MALAYSIA

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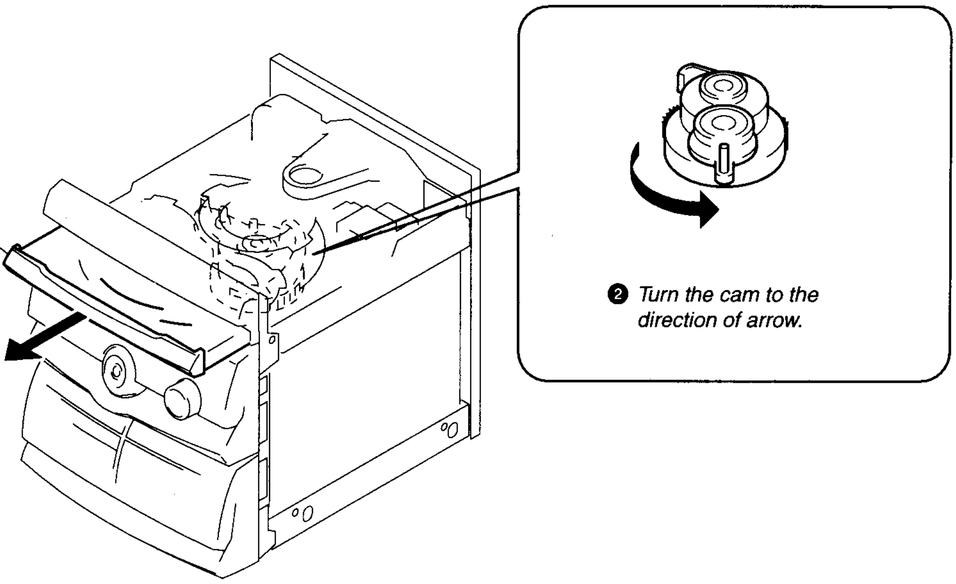
SECTION 1
SERVICING NOTE

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

❶ *Remove the Case.*

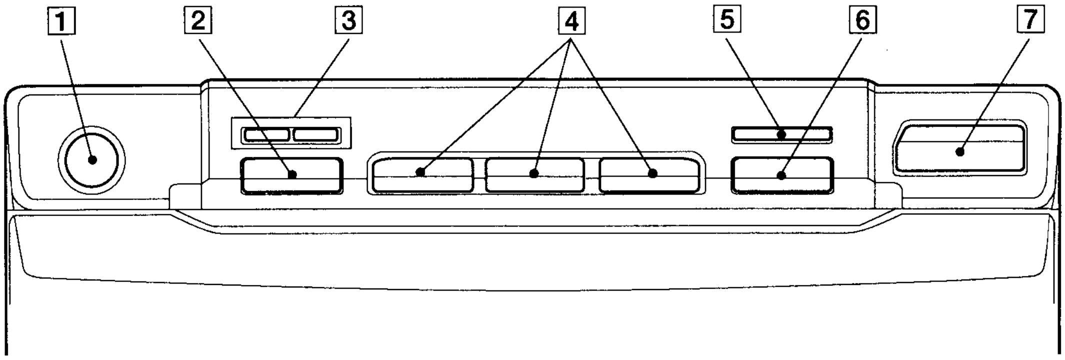


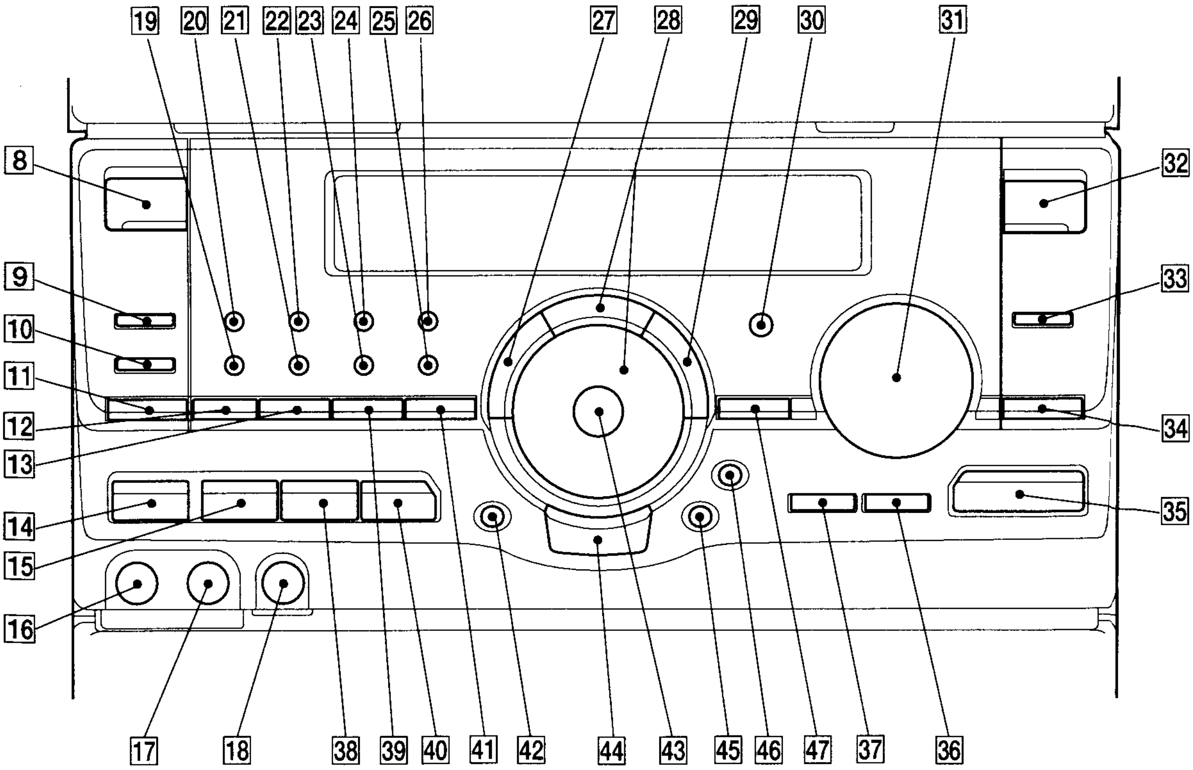
❸ *Pull-out the disc tray.*

❷ *Turn the cam to the direction of arrow.*

SECTION 2
GENERAL

Front Panel

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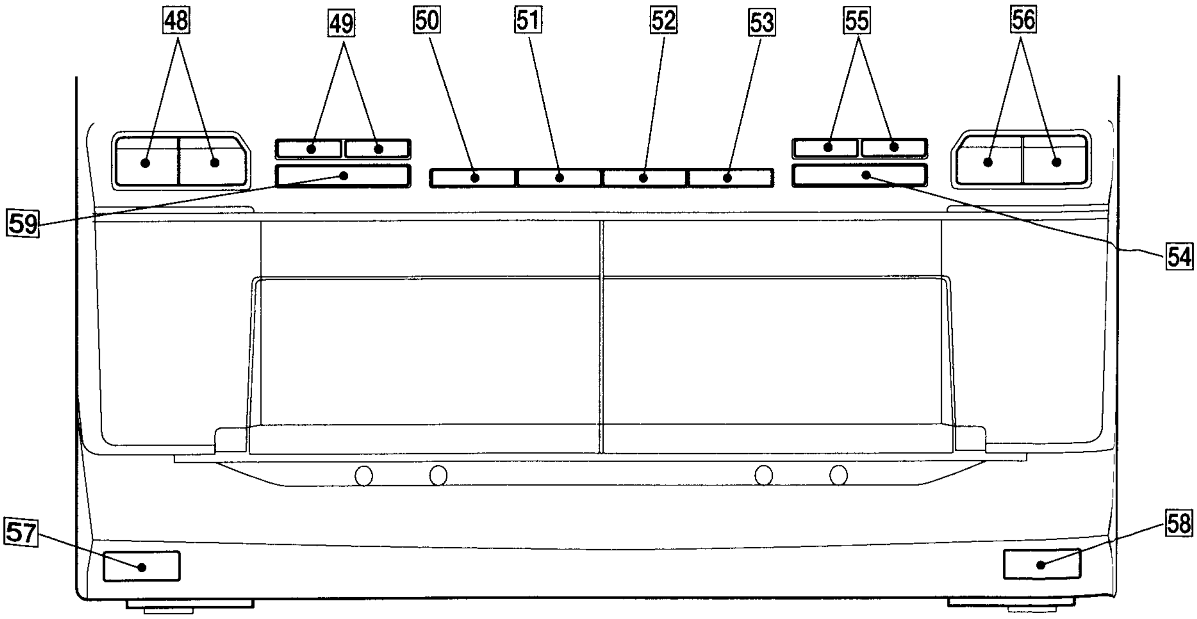
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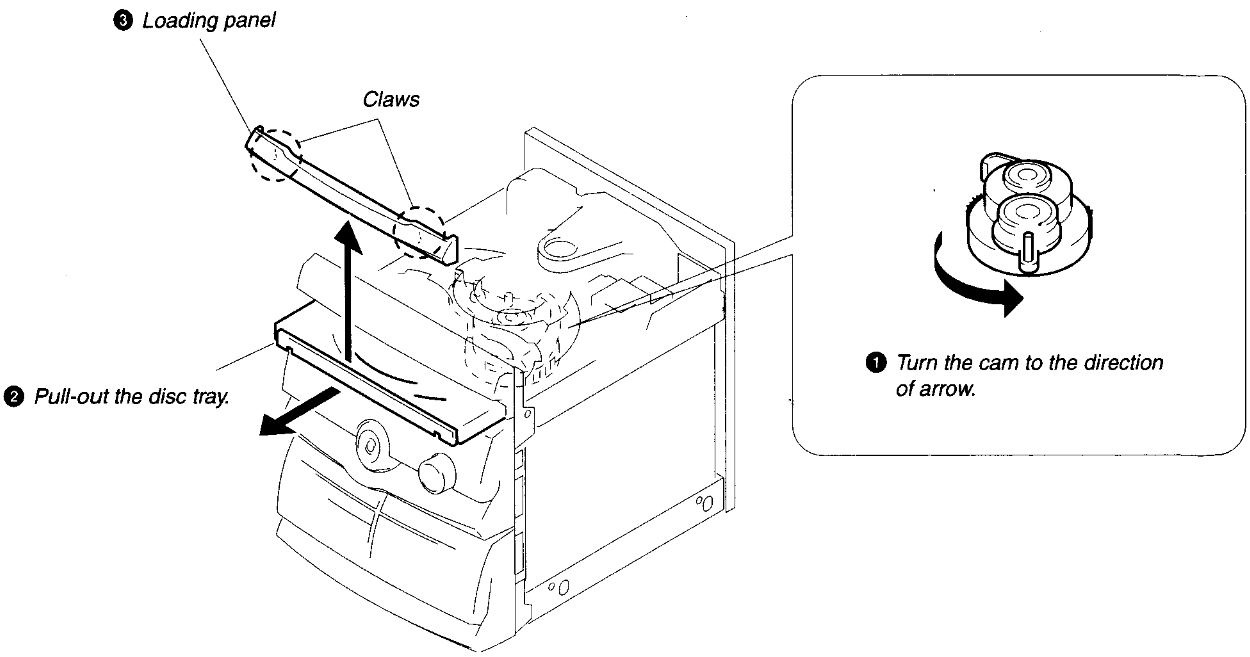
LOCATION OF PARTS AND CONTROLS

1. POWER button
2. DISC SKIP EX-CHANGE button
3. CD ◀◀, ▶▶ button
4. DISC1-DISC3 buttons
5. CD ■ button
6. ⏏ OPEN/CLOSE button
7. CD ▷II button
8. TIMER SELECT button
9. CLOCK/TIMER SET button
10. SLEEP button
11. P FILE MEMORY button
12. P FILE button
13. MUSIC button
14. NON-STOP button
15. WAVE button
16. PHONES jack
17. MIX MIC jack
18. MIC LEVEL knob
19. 1/ALL DISCS button
20. DISPLAY/DEMO button
21. PLAY MODE button
22. SPECTRUM ANALYZER button
23. REPEAT button
24. DOLBY NR button
25. EDIT button
26. DIRECTION button
27. LOW FREQUENCY button
28. JOG dial, indicator
29. HIGH FREQUENCY button
30. KARAOKE PON/MPX button
31. VOLUME control
32. FUNCTION button
33. PTY button (AEP, UK, German)
34. TUNER MEMORY button
35. TUNER/BAND button
36. STEREO/MONO button
37. TUNING MODE button
38. LOOP button
39. MOVIE button
40. FLASH button
41. GAME button
42. GROOVE button
43. ENTER/NEXT button
44. PRO LOGIC button
45. DSP button
46. DBFB button
47. EFFECT ON/OFF button
48. Deck A ◁, ▷ button
49. Deck A ◀◀, ▶▶ button
50. HIGH SPEED DUBBING button
51. CD SYNCHRO button
52. ● REC button
53. ❚❚ button
54. Deck B ■ button
55. Deck B ◀◀, ▶▶ button
56. Deck B ◁, ▷ button
57. Deck A ⏏ button
58. Deck B ⏏ button
59. Deck A ■ button

SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

3-1. LOADING PANEL

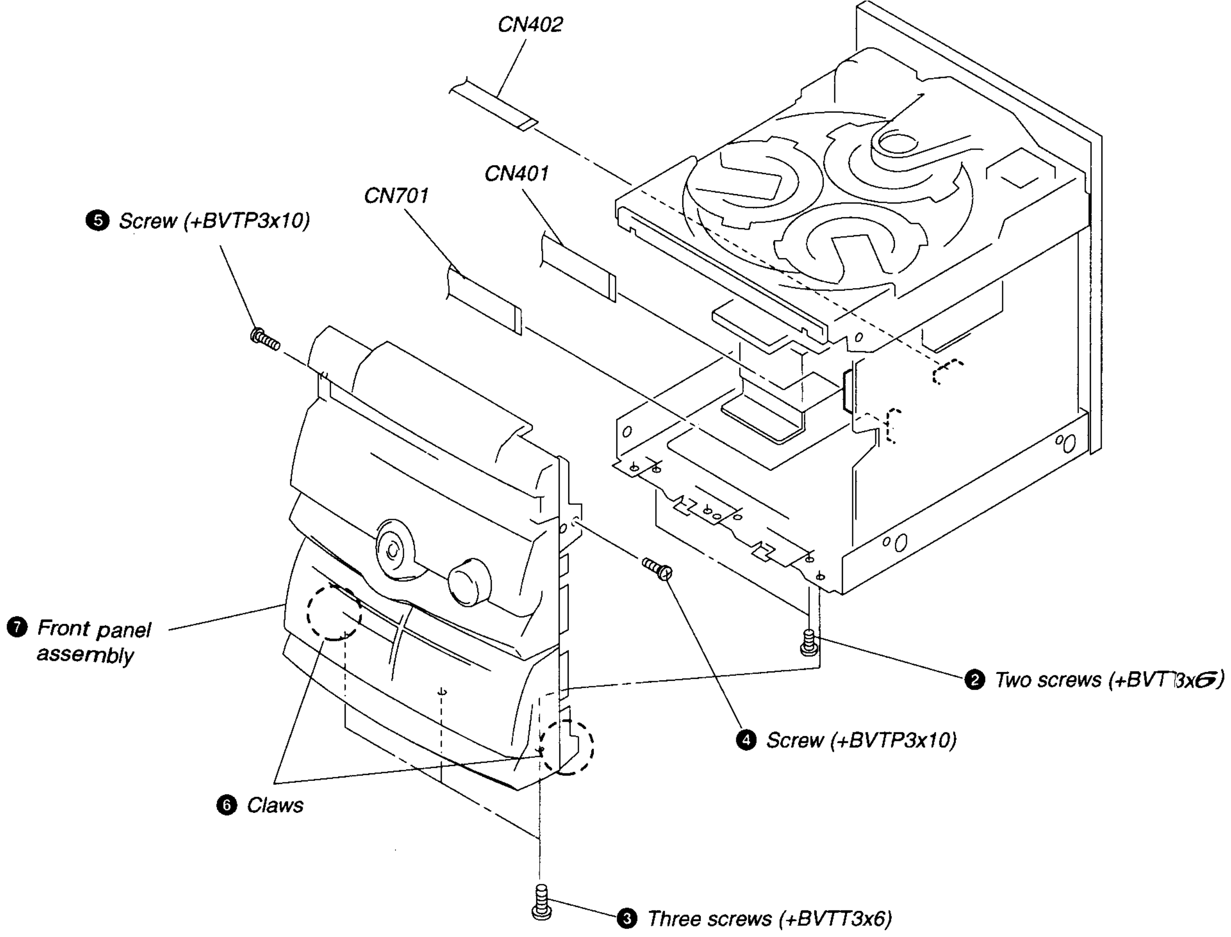

❶ Turn the cam to the direction of arrow.

❷ Pull-out the disc tray.

❸ Loading panel

3-2. FRONT PANEL

❶ Remove the connectors.
(Main board : CN401, CN402, CN701)


❷ Two screws (+BVTT3x6)

❸ Three screws (+BVTT3x6)

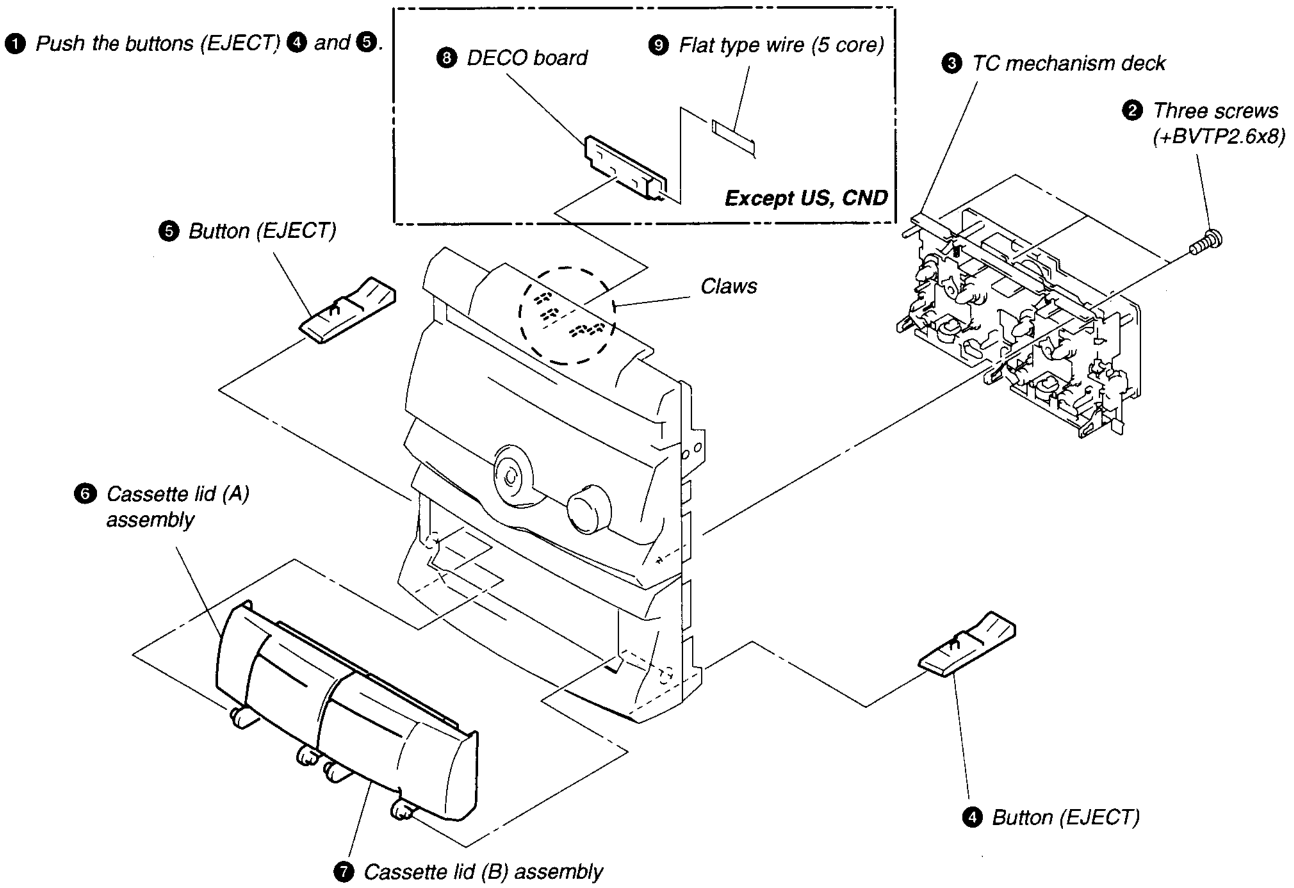
❹ Screw (+BVTP3x10)

❺ Screw (+BVTP3x10)

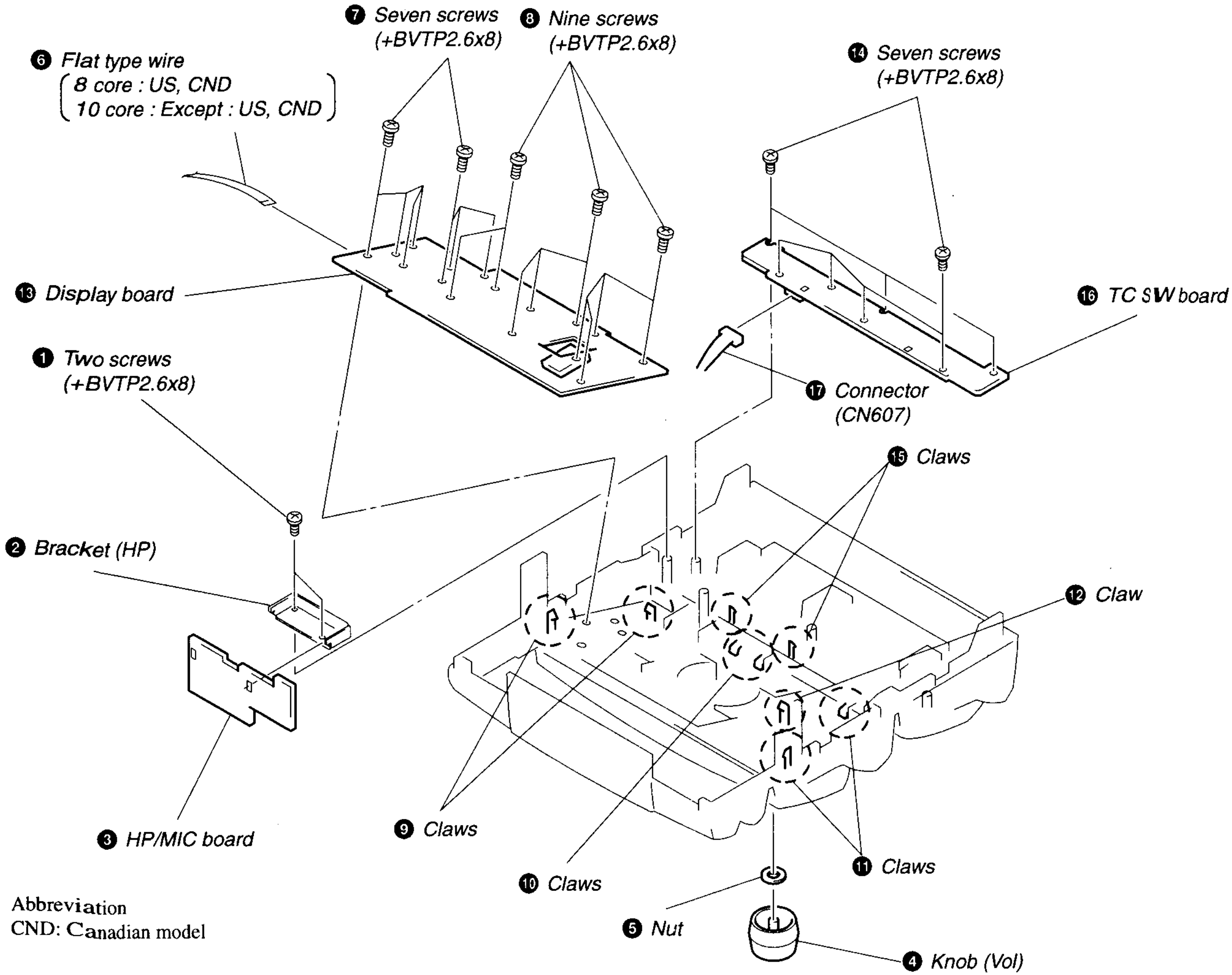
❻ Claws

❼ Front panel assembly

3-3. TC MECHANISM DECK AND DECO BOARD (Except US, CND)


① Push the buttons (EJECT) ④ and ⑤.
⑧ DECO board
⑨ Flat type wire (5 core)
Except US, CND
③ TC mechanism deck
② Three screws (+BVTP2.6x8)
⑤ Button (EJECT)
Claws
⑥ Cassette lid (A) assembly
④ Button (EJECT)
⑦ Cassette lid (B) assembly

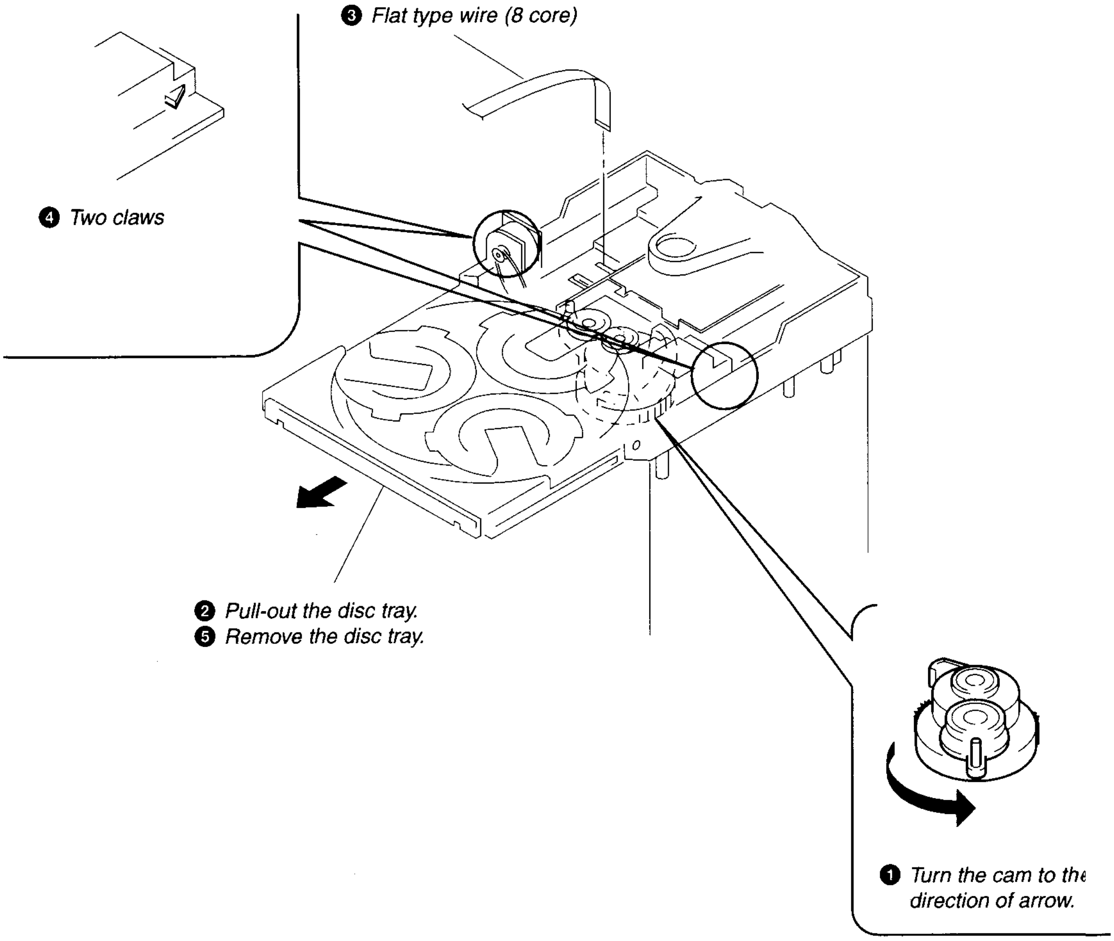
3-4. HP/MIC BOARD, DISPLAY BOARD AND TC SW BOARD


⑦ Seven screws (+BVTP2.6x8)
⑧ Nine screws (+BVTP2.6x8)
⑥ Flat type wire
8 core : US, CND
10 core : Except : US, CND
⑭ Seven screws (+BVTP2.6x8)
⑬ Display board
⑯ TC SW board
① Two screws (+BVTP2.6x8)
⑰ Connector (CN607)
⑮ Claws
② Bracket (HP)
⑫ Claw
③ HP/MIC board
⑨ Claws
⑩ Claws
⑪ Claws
⑤ Nut
④ Knob (Vol)

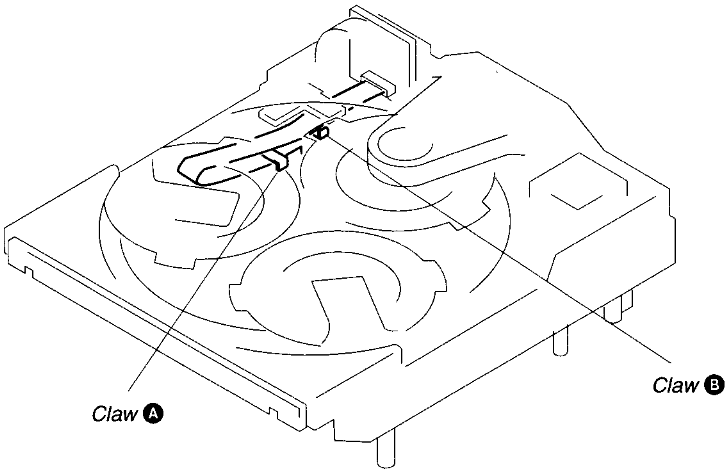
- Abbreviation
  CND: Canadian model

3-5. DISC TRAY

(Perform after removing the front panel.)


❸ Flat type wire (8 core)
❹ Two claws
❷ Pull-out the disc tray.
❺ Remove the disc tray.
❶ Turn the cam to the
direction of arrow.

Note: *When installing the Disc tray, pull around the flat type wire to pass through the claw* Ⓐ *and claw* Ⓑ*, as shown in the figure.*



SECTION 4
SERVICE MODE

MC Cold Reset

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons SPECTRUM ANALYZER, ENTER/NEXT, and DISC 1 simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

CD Delivery Mode

- This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press POWER button to turn the set ON.
2. Press PLAY MODE button and POWER button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons SPECTRUM ANALYZER, ENTER/NEXT, and DISC 2 simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

Sled Servo Mode

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Select the function "CD".
2. Press three buttons SPECTRUM ANALYZER, ENTER/NEXT, and FUNCTION simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press ▶▶ button in CD section to move the pick-up to outside track, or ◀◀ button to inside track.
5. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note:

- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of FUNCTION Name

- The FUNCTION name of external input terminal can be changed over to VIDEO or MD. With the FUNCTION selected to "MD", about 5dB mute is applied to the input gain.

Procedure:

1. Press POWER button to turn the set OFF.
2. Press POWER button together with FUNCTION button, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO" instantaneously, and thus the FUNCTION is changed over.

Change-over of AM Tuner Step between 9kHz and 10kHz

- A step of AM channels can be changed over between 9kHz and 10kHz.

Procedure:

1. Press POWER button to turn the set ON.
2. Select the function "TUNER", and press TUNER/BAND button to select the BAND "AM".
3. Press POWER button to turn the set OFF.
4. Press ENTER/NEXT and POWER buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9k STEP" or "AM 10k STEP", and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons SPECTRUM ANALYZER, ENTER/NEXT, and DISC 3 simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press DISC 2 button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 V0 J0". Each time a button is pressed, "K"value increases. However, once a button is pressed, it is no longer taken into account.
   "J" Value increases like 1, 2, 3 ... if rotating JOG knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
   "V" Value increases like 1, 2, 3 ... if rotating VOLUME knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

Aging Mode

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops.
- If no error occurs:
  The aging operation continues repeatedly.

1. Aging Mode in CD Section

1-1. Operating procedure of Aging Mode

1. Set discs in DISC 1 and DISC 2 trays.
2. Select the function "CD".
3. Press three buttons SPECTRUM ANALYZER, ENTER/NEXT, and KARAOKE PON/MPX simultaneously.
4. The aging mode is activated, if a roulette mark on the fluorescent indicator tube is blinking.
5. In the aging mode, the aging is executed in a sequence given in "1-2. Operation during Aging Mode".
   The aging continues unless an alarm occurred.
6. To exit from the aging mode, press POWER button to turn the set OFF.

- If a button other than buttons In CD section is pressed during aging, the aging in the CD section is finished.
- To execute aging to the tape deck section successively, press ▷ button in the deck A.
  "AGING" is displayed on the fluorescent indicator tube. (For the aging in tape deck, see "2. Aging Mode in Tape Deck Section".

1-2. Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

1. The disc table is ejected.
2. The disc tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
3. TOC of disc is read.
4. The pick-up accesses to the last track.
5. Disc table is ejected.
6. Steps 2 through 5 are repeated.

1-3. Disc Selection Sequence

- During the aging mode, discs are selected in the following sequence:

$$\begin{tikzcd}\text{Disc 1} \arrow[r] & \text{Disc 2} \arrow[d] \\ \text{Disc 2} \arrow[u] & \text{Disc 1} \arrow[l]\end{tikzcd}$$

2. Aging Mode in Tape Deck Section

2-1. Operating procedure of Aging Mode

1. Load a commercially available 10-minute tape into the decks A and B respectively.
   (If a 10-minute tape is not available, another tape may be used but a cycle time will be longer.)
2. Select the function "TAPE".
3. Rewind tapes in advance by pressing ◀◀ button respectively on decks A and B.
4. Press three buttons SPECTRUM ANALYZER, ENTER/NEXT, and KARAOKE PON/MPX simultaneously.
5. Press ▷ button on deck A. (This button triggers the aging mode.)
6. The aging mode is activated if "AGING A" is displayed on the fluorescent indicator tube.
7. In the aging mode, the aging is executed in a sequence given in "2-2. Operation during Aging Mode".
   The aging continues unless an alarm occurred.
8. To exit from the aging mode, press POWER button to turn the set OFF.

2-2. Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

1. A tape on FWD side is played for one minute.
2. PAUSE STOP is made.
3. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, ▷ LED does not light up.)
4. FF is executed up to the end of tape.
5. A tape is reversed, and the tape on REV side is played for one minute.
6. PAUSE STOP is made.
7. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, ◁ LED does not light up.)
8. FF is executed up to the end of tape.
9. Steps 1 through 8 are executed for the other deck.
10. Steps 1 through 9 are repeated unless an alarm occurred.

2-3. Deck Selection Sequence

- During the aging mode, decks are selected in the following sequence:

$$\begin{tikzcd}\text{Deck A (FWD)} \arrow[r] & \text{Deck A (REV)} \arrow[d] \\ \text{Deck B (REV)} \arrow[u] & \text{Deck B (FWD)} \arrow[l]\end{tikzcd}$$

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	36 to 61 g • cm (0.5 - 0.84 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 - 0.08 oz • inch)
REV	CQ-102RC	36 to 61 g • cm (0.5 - 0.84 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 - 0.08 oz • inch)
FF/REW	CQ-201B	61 to 143 g • cm (0.85 - 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION **0 dB=0.775V**

1. Demagnetize the record/playback head with a head damagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

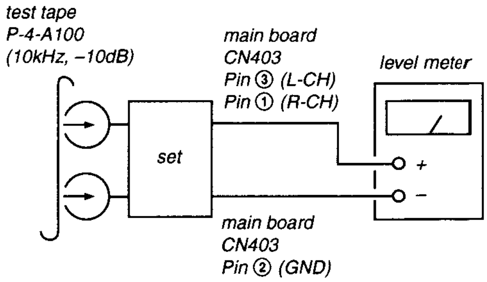
Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

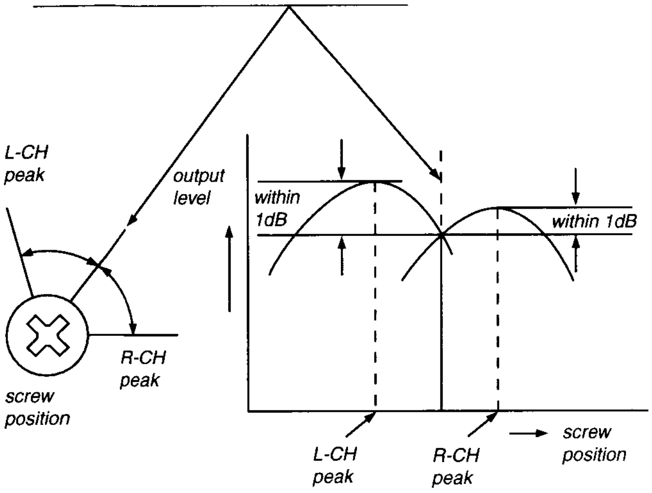
Note: Perform this adjustments for both decks.

Procedure:

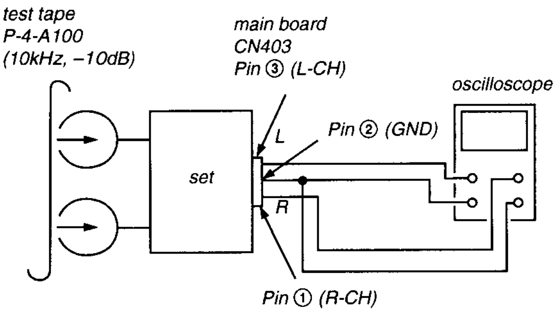
1. Mode : Playback

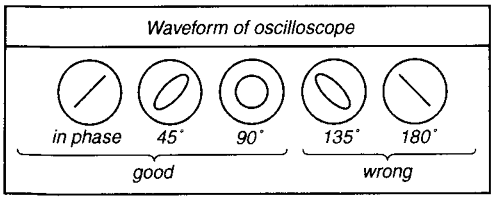


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.


L-CH peak
output level
within 1dB
within 1dB
R-CH peak
screw position
L-CH peak
R-CH peak
screw position

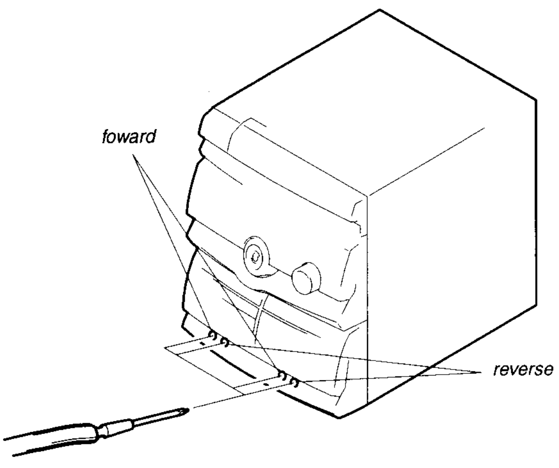
3. Mode: Playback


test tape P-4-A100 (10kHz, -10dB)
main board CN403 Pin ③ (L-CH)
oscilloscope
Pin ② (GND)
L
set
R
Pin ① (R-CH)


Waveform of oscilloscope
in phase
45°
90°
135°
180°
good
wrong

4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A)
Record/Playback/Erase Head (Deck B)


foward
reverse

Tape Speed Adjustment (Deck A)

Note: Set the test mode using the following method and begin tape speed adjustment.
In the test mode, the tape will move at double speed while the HIGH SPEED DUBBING button is pressed.

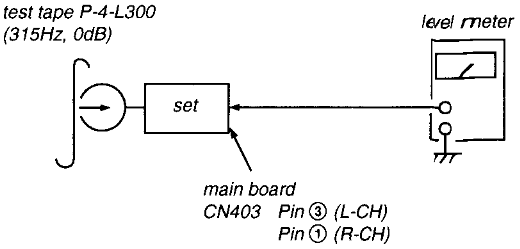
Procedure:
With the power turned ON, press the SPECTRUM ANALYZER button, ENTER/NEXT button, and EFFECT ON/OFF button simultaneously.
(The "VOLUME" on the fluorescent display tube will blink while in the test mode.)
To exit the test mode, press the POWER button.

1. Load WS-48B into deck A and a recordable tape into deck B.
2. Press the ● REC button, and press the ▷ button of deck B to set deck B into the recording state.
3. Play deck A.
4. While pressing the HIGH SPEED DUBBING button, set double speed play.
5. Adjust RV652 of the AUDIO board so that the reading of the frequency counter becomes 6000 ± 30 Hz.
6. Release the HIGH SPEED DUBBING button to set normal speed play.
7. Adjust RV651 of the AUDIO board so that the reading of the frequency counter becomes 3000 ± 15 Hz.

Adjustment Location: AUDIO board

Playback Level Adjustment (Deck A, Deck B)

Procedure:
Mode: Playback


test tape P-4-L300 (315Hz, 0dB)
level meter
set
main board
CN403 Pin ③ (L-CH)
Pin ① (R-CH)

Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH)
so that adjustment within the following adjustment level.

Adjustment level:
CN403 playback level: 301.5 to 338.3 mV (–8.2 to -7.2 dB)
level difference between the channels: within ± 0.5 dB
Adjustment Location: AUDIO board

Record Bias Adjustment (Deck B)

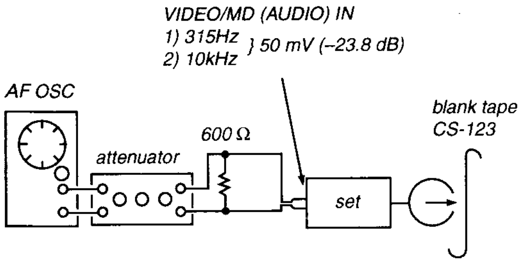
Procedure:

INTRODUCTION

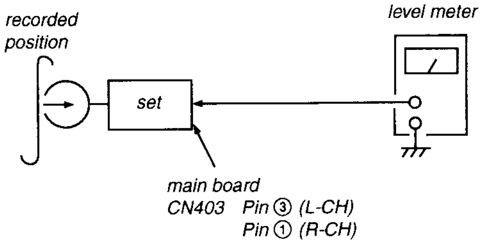
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

1. Press FUNCTION button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Load a tape into deck B, and press the ● REC button.
3. Mode: Record


VIDEO/MD (AUDIO) IN
1) 315Hz
2) 10kHz
} 50 mV (-23.8 dB)
AF OSC
600 Ω
attenuator
set
blank tape
CS-123

4. Mode: Playback


recorded
position
set
level meter
main board
CN403 Pin③ (L-CH)
Pin① (R-CH)

5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

Adjustment level: The playback output of 10 kHz level difference against 315 Hz reference should be ± 1.0 dB.

Adjustment Location: AUDIO board

Record Level Adjustment (Deck B)

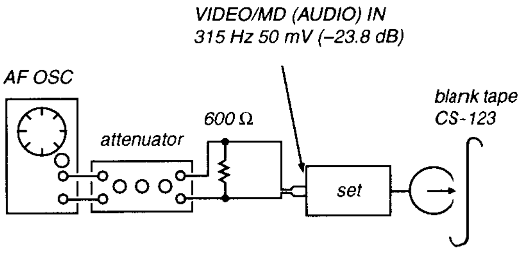
Procedure:

INTRODUCTION

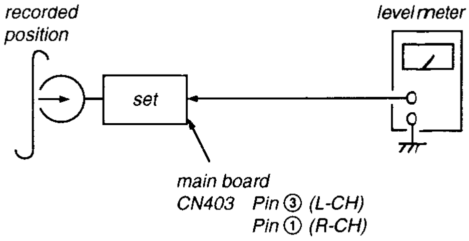
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

1. Press FUNCTION button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Load a tape into deck B, and press the ● REC button.
3. Mode: Record


VIDEO/MD (AUDIO) IN
315 Hz 50 mV (-23.8 dB)
AF OSC
600 Ω
attenuator
set
blank tape
CS-123

4. Mode: Playback


recorded
position
set
level meter
main board
CN403 Pin③ (L-CH)
Pin① (R-CH)

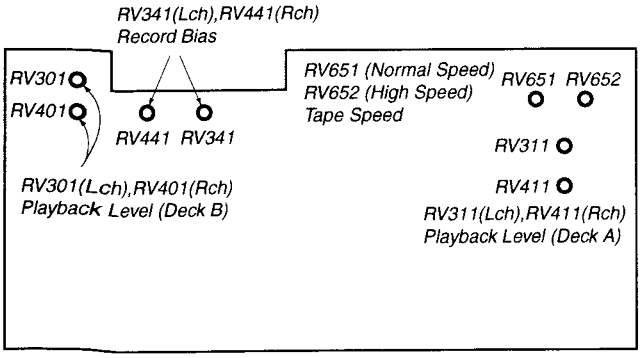
5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

Adjustment level:
CN403 playback level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

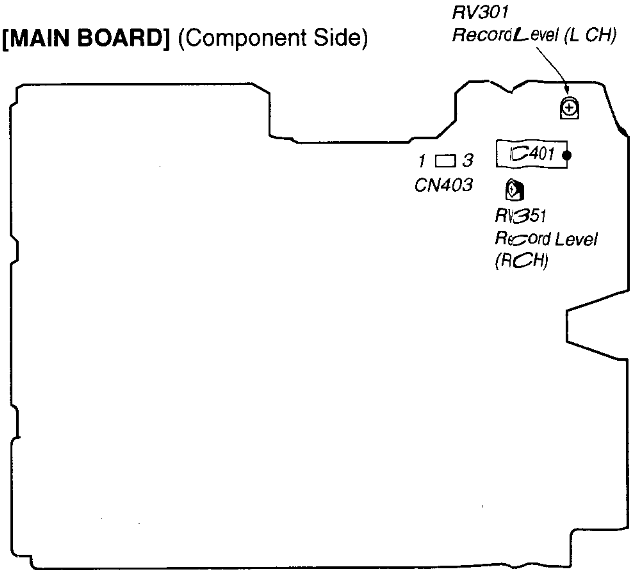
Adjustment Location: MAIN board

Adjustment Location

[AUDIO BOARD] (Conductor Side)


RV341(Lch),RV441(Rch)
Record Bias
RV301
RV401
RV441
RV341
RV651 (Normal Speed)
RV652 (High Speed)
Tape Speed
RV651
RV652
RV311
RV411
RV301(Lch),RV401(Rch)
Playback Level (Deck B)
RV311(Lch),RV411(Rch)
Playback Level (Deck A)

[MAIN BOARD] (Component Side)


RV301
Record Level (L CH)
1
3
CN403
C401
RV351
Record Level
(RCH)

TUNER SECTION | 0dB=1μV

Note 1: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

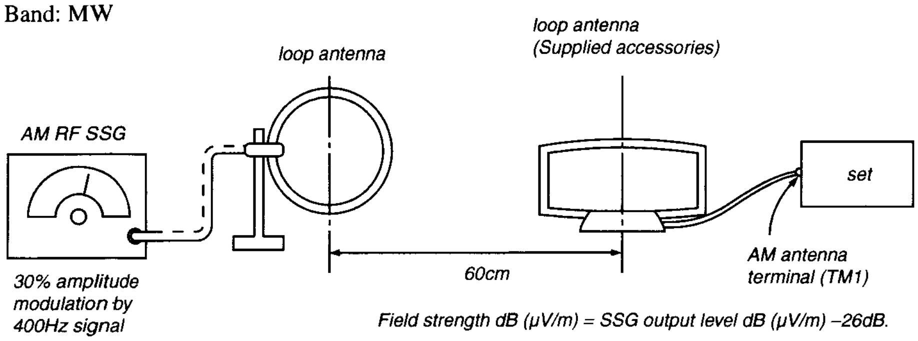
Note 2: No adjustment is needed due to a tuner pack for except AEP, UK, German, East European, CIS models.

AM Tuned Level Adjustment

Note: FM Tuned Level adjustment should be performed after this AM Tuned Level Adjustment.

Setting:

Band: MW


loop antenna
loop antenna
(Supplied accessories)
AM RF SSG
set
AM antenna
terminal (TM1)
60cm
30% amplitude
modulation by
400Hz signal

Field strength dB (μV/m) = SSG output level dB (μV/m) −26dB.

Modulation: 999 kHz (at 9 kHz step)
1,050 kHz (at 10 kHz step)

Procedure:

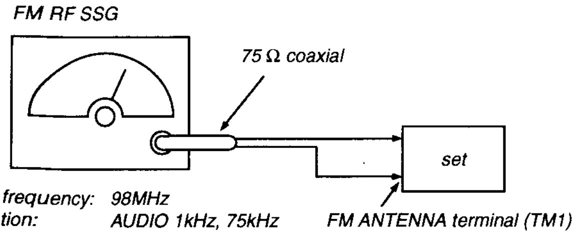
1. Set the output of SSG so that the input level of the set becomes 55 dB or 58 dB. (55 dB: Except East European, CIS model, 58 dB: East European, CIS model)
2. Tune the set to 999 kHz or 1,050 kHz.
3. Adjust RV41 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location: TCB board

FM Tuned Level Adjustment

Note: This adjustment should be performed after the AM Tuned Level Adjustment.

Setting:


FM RF SSG
75 Ω coaxial
set
FM ANTENNA terminal (TM1)

Carrier frequency:	*98MHz*
Modulation:	*AUDIO 1kHz, 75kHz deviation (100%)*
Output level:	*25dB (at 75 Ω open) (Except East European, CIS model)* *23dB (at 75 Ω open) (East European, CIS model)*

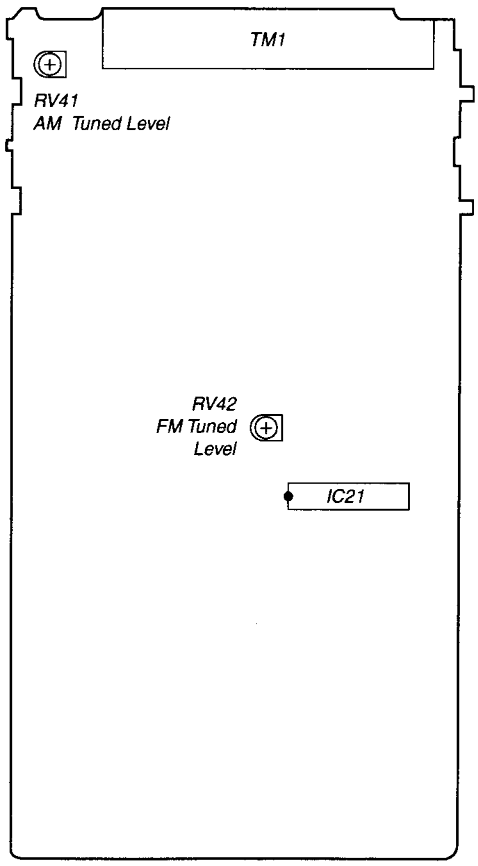
Band: FM

Procedure:

1. Supply a 25 dB or 23 dB 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV42 to the point (moment) when the TUNED indicator will change from going off to going on.

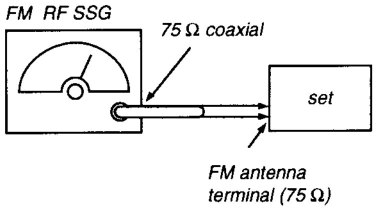
Adjustment Location: TCB board

Adjustment Location
[TCB BOARD] (Component Side)


TM1
RV41
AM Tuned Level
RV42
FM Tuned
Level
IC21

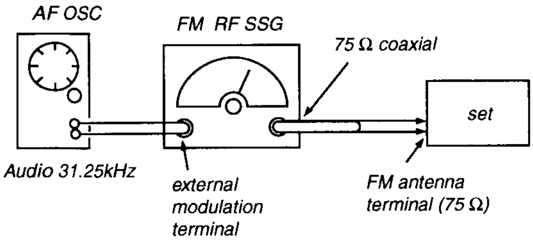
FM Polar Adjustment (East European, CIS model only)

Connection 1 :


FM RF SSG
75 Ω coaxial
set
FM antenna
terminal (75 Ω)

Carrier frequency:	*69 MHz*
Output level:	*1 mV (60 dBμ) (at 75 Ω open)*
Modulation:	*AUDIO 1 kHz, 10 kHz deviation*

Connection 2 :

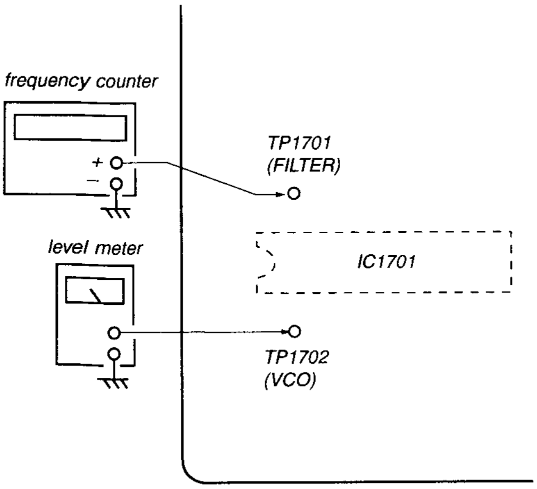

AF OSC
FM RF SSG
75 Ω coaxial
set
Audio 31.25kHz
external
modulation
terminal
FM antenna
terminal (75 Ω)

Carrier frequency:	*69 MHz*
Output level:	*1 mV (60 dBμ) (at 75 Ω open)*
Modulation:	*AUDIO 31.25 kHz, 10 kHz deviation (EXTERNAL MODULATION)*

Adjustment Location: TCB board

Adjustment Location

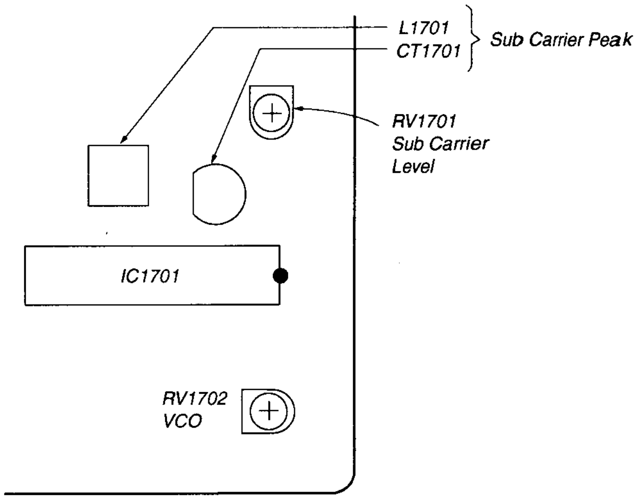
[TCB BOARD] (Conductor Side)


frequency counter
+
−
level meter
TP1701
(FILTER)
IC1701
TP1702
(VCO)

Procedure :

1. Set the modulation of FM RF SSG to AUDIO 1 kHz, 10 kHz deviation according to “Connection 1”.
2. Tune the set to 69 MHz.
3. Adjust the RV1702 so that the reading of frequency counter connected to TP1702 (VCO) becomes within 31.25 kHz ± 0.05 kHz. (VCO adjustment)
4. Then record the reading of the level meter connected to TP1701.
5. Set the modulation of FM RF SSG to AUDIO 31.25 kHz, 10 kHz deviation according to “Connection 2”.
6. Tune the set to 69 MHz.
7. Set the CT1701 to be mechanical center.
8. Adjust the L1701 so that the reading of the level meter connected to TP1701 (FILTER) becomes maximum.
   Then adjust the CT1701 so that the reading of the level meter connected to TP1701 (FILTER) becomes maximum. (SUB CARRIER PEAK Adjustment)
9. Adjust the RV1701 so that the level at the moment becomes 14 dB higher value than the level recorded in step 4. (SUB CARRIER LEVEL Adjustment)

[TCB BOARD] (Component Side)

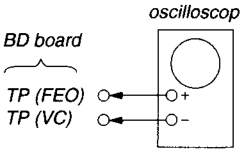

L1701
CT1701
Sub Carrier Peak
RV1701
Sub Carrier
Level
IC1701
RV1702
VCO

CD SECTION

Note:

1. CD Block is basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check

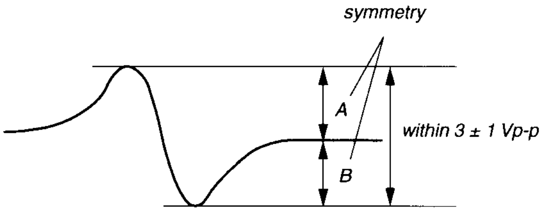


oscilloscope
BD board
TP (FEO)
TP (VC)
+
-

Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and Ground by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1Vp-p.

S-curve waveform



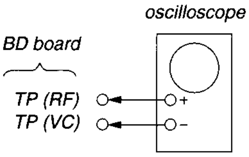
symmetry
A
B
within 3 ± 1 Vp-p

6. After check, remove the lead wire connected in step 2.

Note: • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.

- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



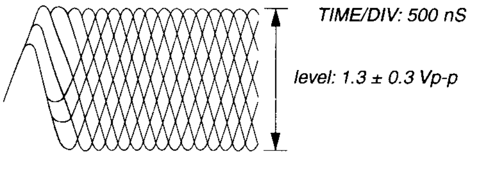
oscilloscope
BD board
TP (RF)
TP (VC)
+
-

Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

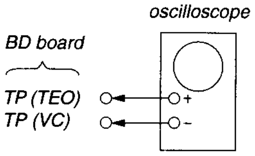
Note: Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



VOLT/DIV: 200 mV
TIME/DIV: 500 nS
level: 1.3 ± 0.3 Vp-p

E-F Balance (1 Track Jump) check

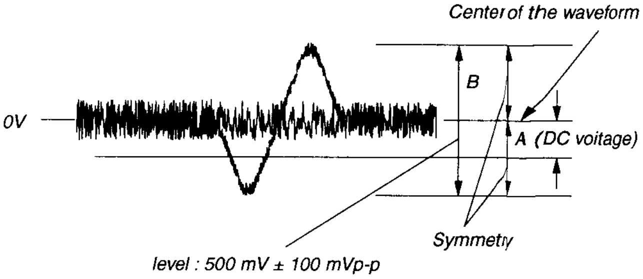


oscilloscope
BD board
TP (TEO)
TP (VC)
+
-

Procedure:

1. Connect oscilloscope to test point TP (TEO) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Press the "❚❚ (Pause)" button.
5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following:
   - $\frac{A - B}{2(A + B)}$ x 100 = less then ± 7 (%)
   - A + B = 500 ± 100 mVp-p

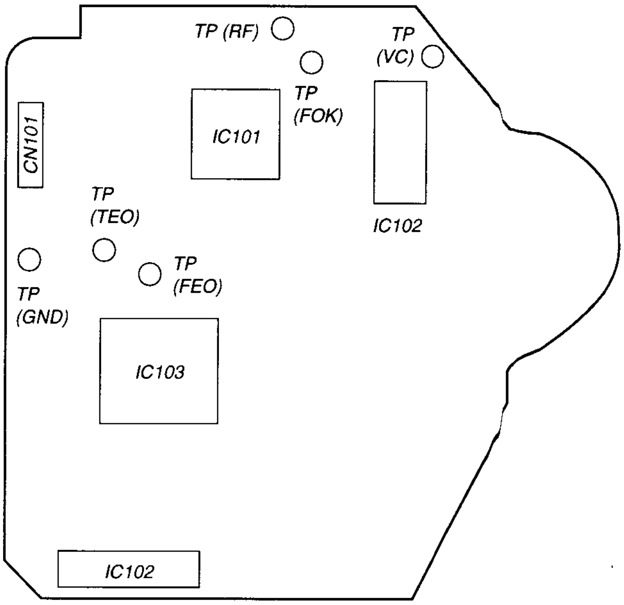
1 track jump waveform



Center of the waveform
B
0V
A (DC voltage)
Symmetry
level : 500 mV ± 100 mVp-p

Adjustment Location:

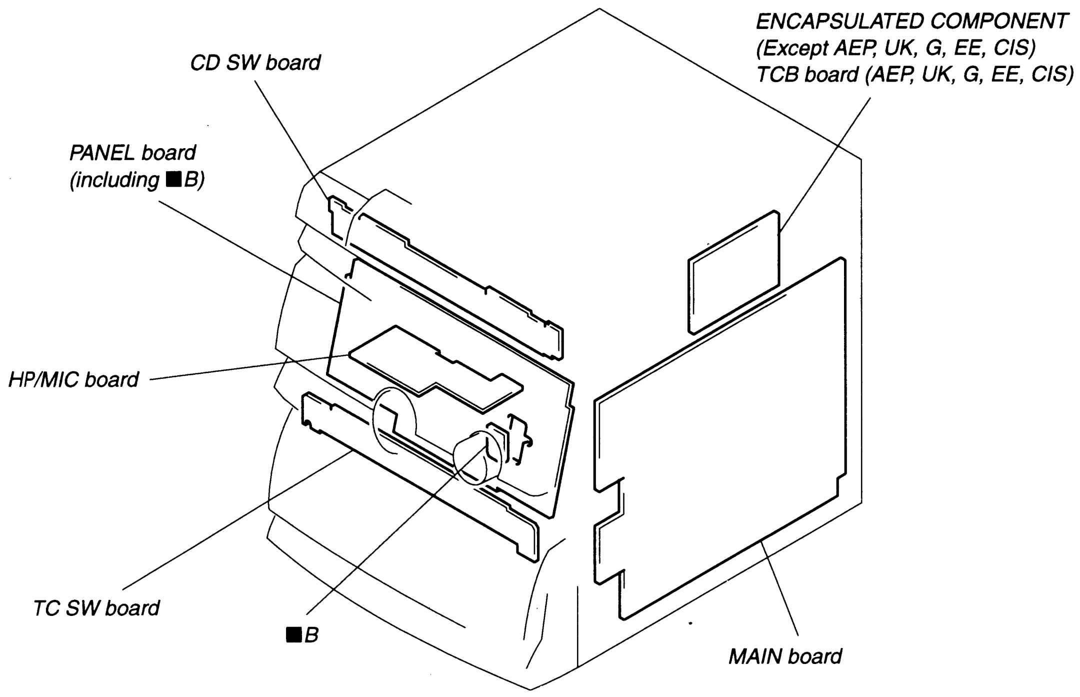
[BD BOARD] (Conductor Side)



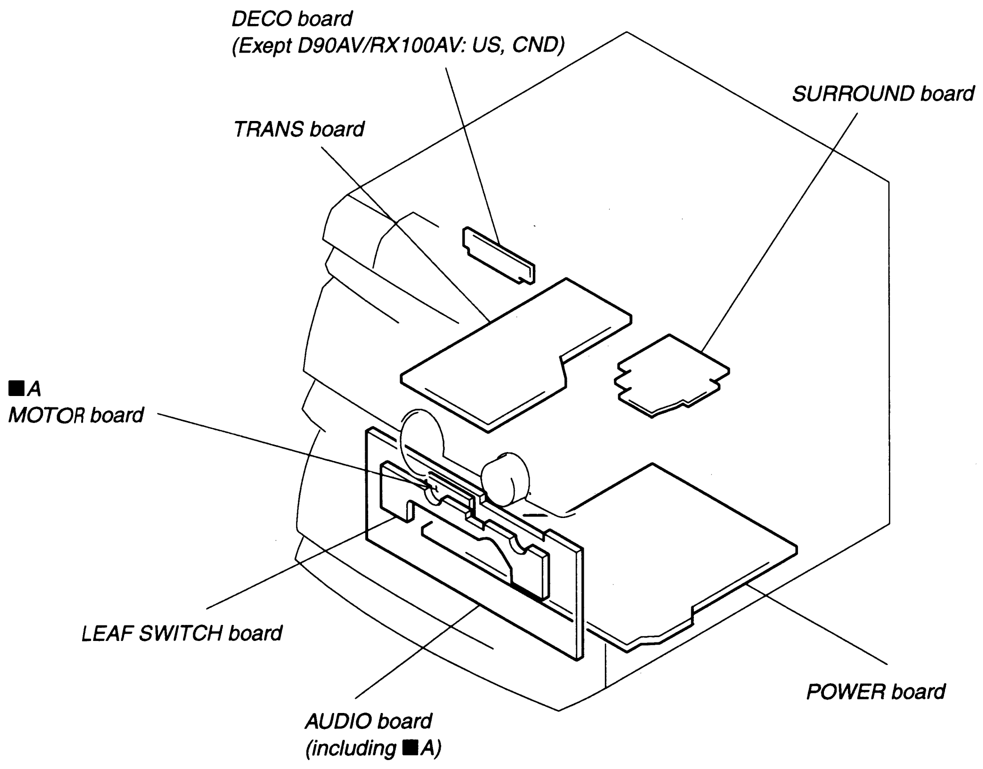
TP (RF)
TP (VC)
TP (FOK)
IC101
CN101
IC102
TP (TEO)
TP (FEO)
TP (GND)
IC103
IC102

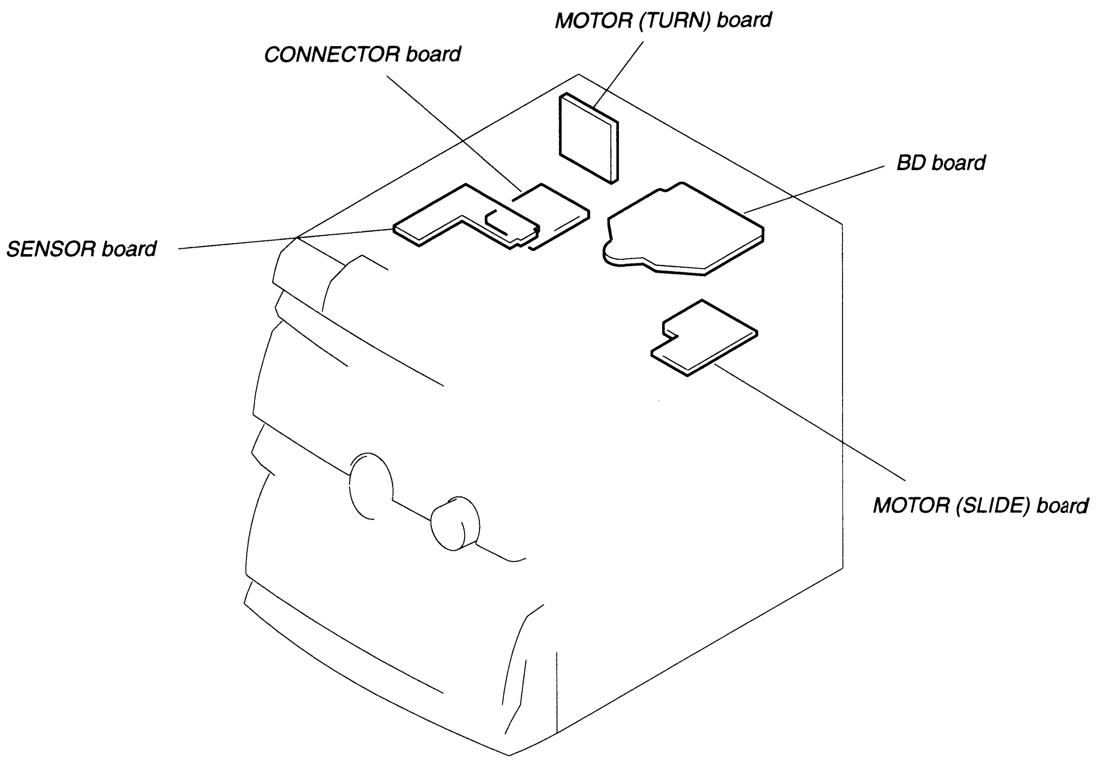
SECTION 7
DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION


CD SW board
ENCAPSULATED COMPONENT
(Except AEP, UK, G, EE, CIS)
TCB board (AEP, UK, G, EE, CIS)
PANEL board
(including ■B)
HP/MIC board
TC SW board
■B
MAIN board

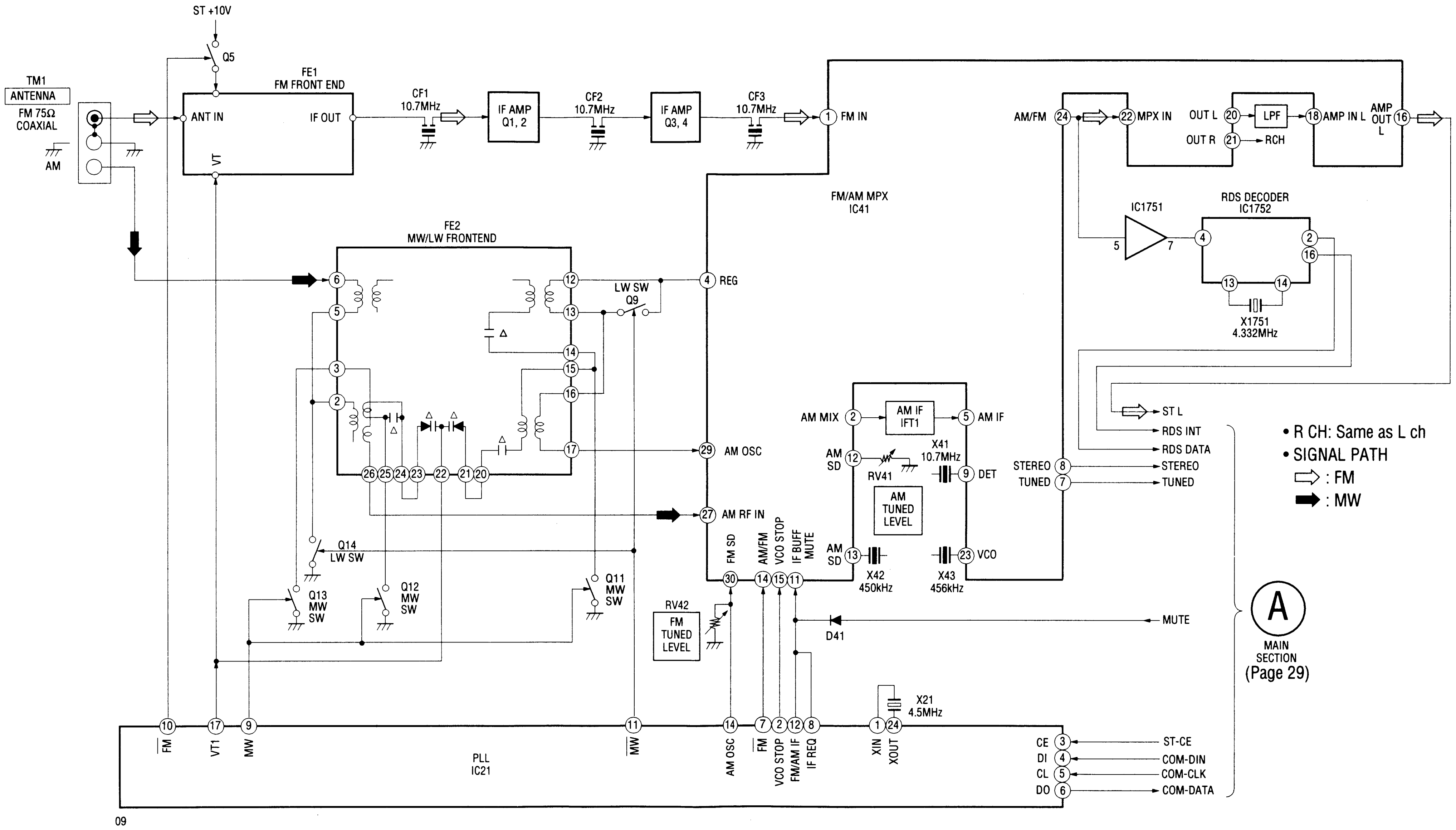
Note: ■A is including in AUDIO board.
■B is including in PANEL board.


DECO board
(Exept D90AV/RX100AV: US, CND)
TRANS board
SURROUND board
■A
MOTOR board
LEAF SWITCH board
AUDIO board
(including ■A)
POWER board

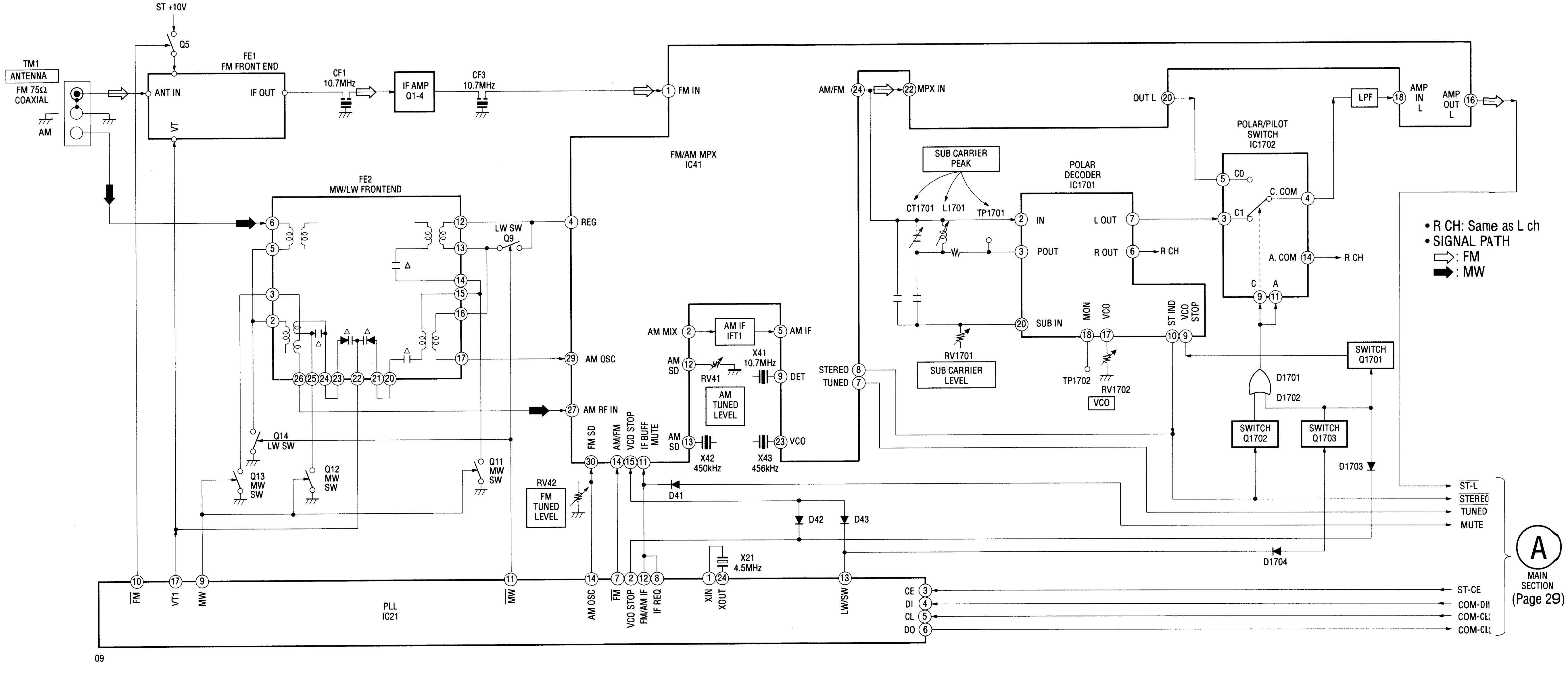

MOTOR (TURN) board
CONNECTOR board
BD board
SENSOR board
MOTOR (SLIDE) board

- Abbreviation
  CND :Canadian model
  G :German model
  EE :East European model

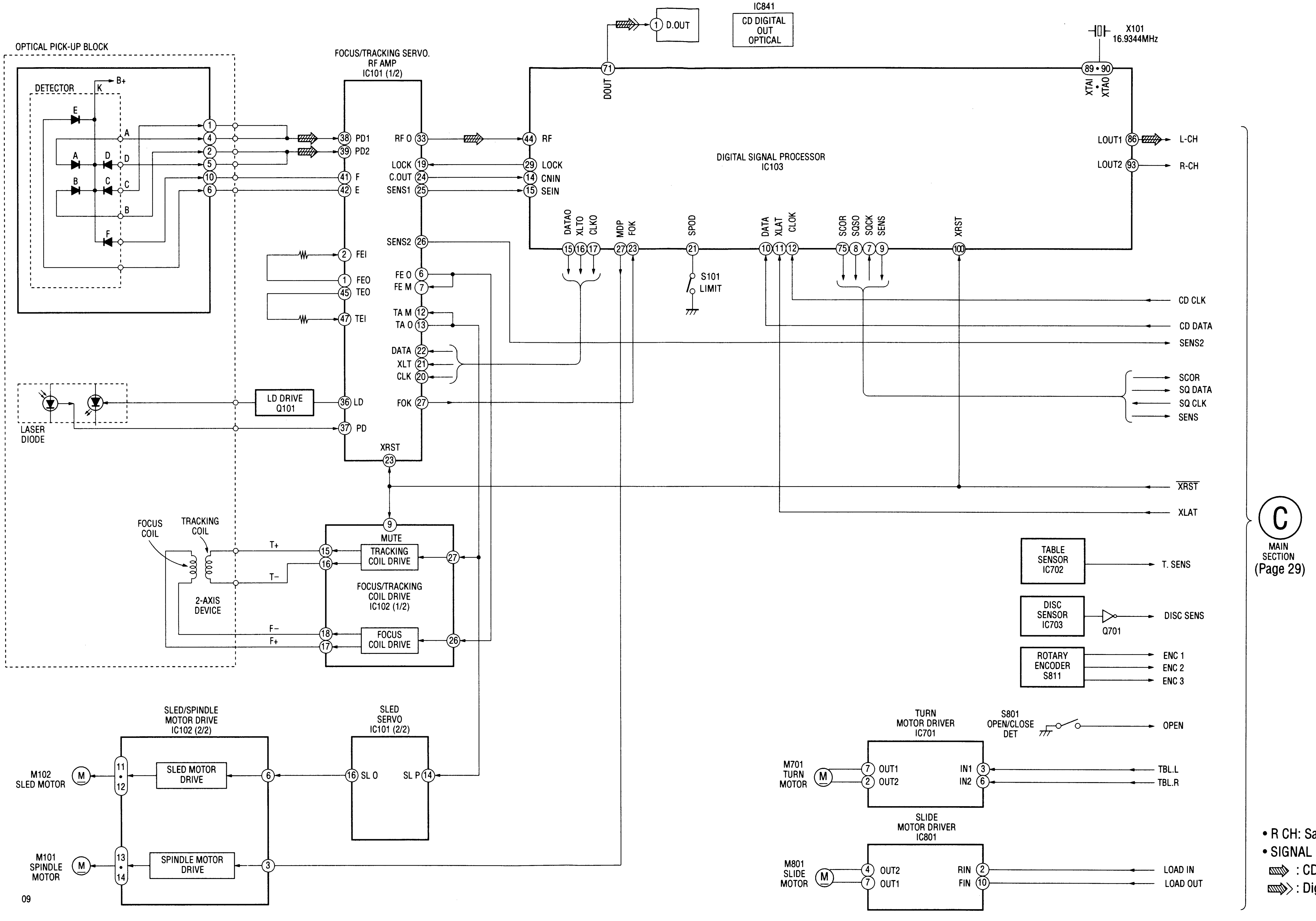
7-2. BLOCK DIAGRAMS
— TUNER SECTION — (AEP, UK, German model)


ST +10V
Q5
TM1
ANTENNA
FM 75Ω
COAXIAL
AM
FE1
FM FRONT END
ANT IN
IF OUT
VT
CF1
10.7MHz
IF AMP
Q1, 2
CF2
10.7MHz
IF AMP
Q3, 4
CF3
10.7MHz
FM IN
FM/AM MPX
IC41
AM/FM
MPX IN
OUT L
OUT R
LPF
RCH
AMP IN L
AMP OUT L
IC1751
RDS DECODER
IC1752
X1751
4.332MHz
FE2
MW/LW FRONTEND
LW SW
Q9
REG
AM OSC
AM RF IN
Q14
LW SW
Q13
MW
SW
Q12
MW
SW
Q11
MW
SW
FM SD
AM/FM
VCO STOP
IF BUFF
MUTE
RV42
FM
TUNED
LEVEL
AM MIX
AM IF
IFT1
AM IF
AM SD
RV41
X41
10.7MHz
DET
AM
TUNED
LEVEL
X42
450kHz
X43
456kHz
VCO
STEREO
TUNED
D41
MUTE
ST L
RDS INT
RDS DATA
STEREO
TUNED
X21
4.5MHz
FM
VT
MW
PLL
IC21
MW
AM OSC
FM
VCO STOP
FM/AM IF
IF REQ
XIN
XOUT
CE
DI
CL
DO
ST-CE
COM-DIN
COM-CLK
COM-DATA
A
MAIN
SECTION
(Page 29)
• R CH: Same as L ch
• SIGNAL PATH
⇨ : FM
➡ : MW
09

— TUNER SECTION — (East European, CIS model)

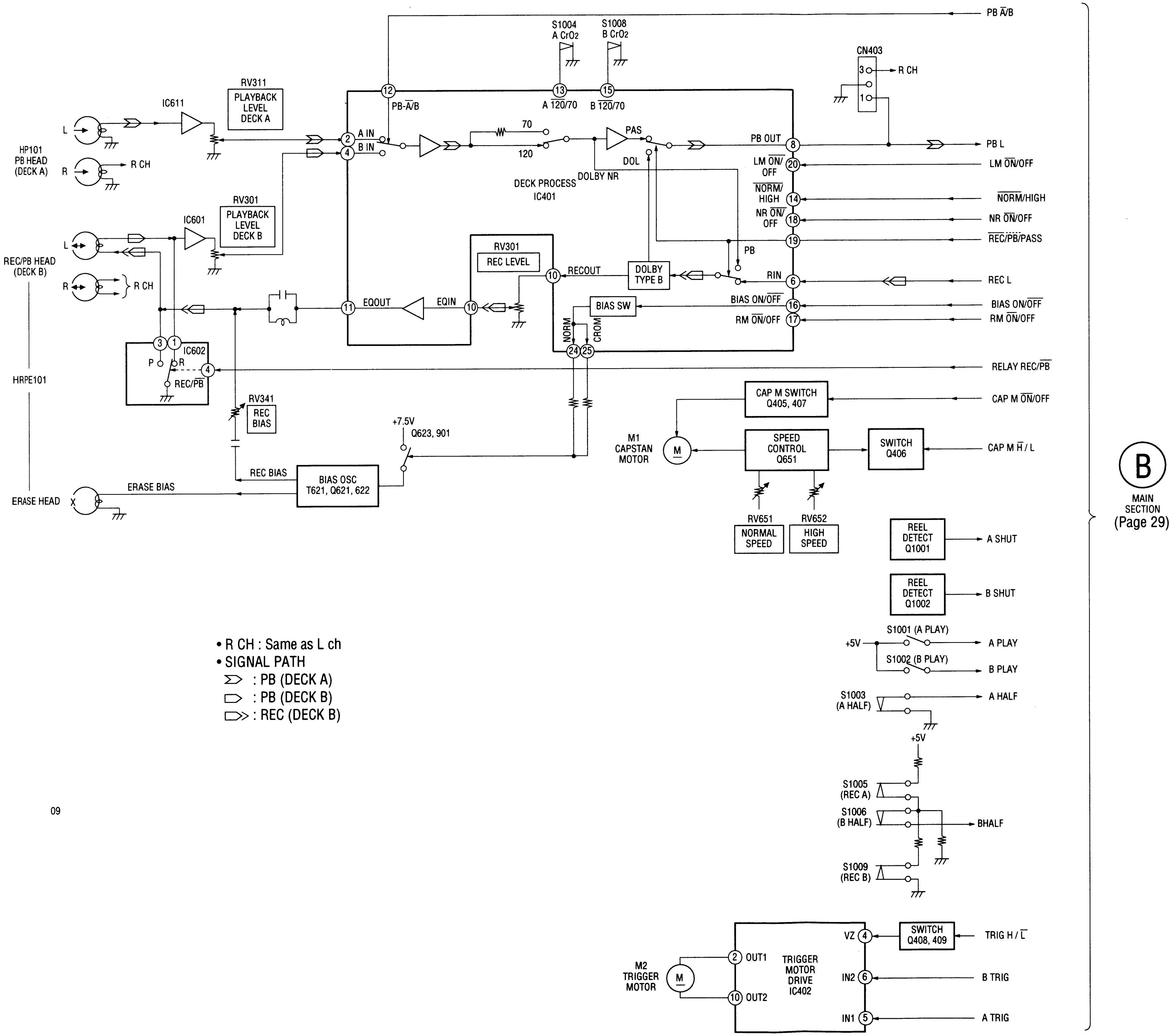

ST +10V
Q5
TM1
ANTENNA
FM 75Ω
COAXIAL
AM
FE1
FM FRONT END
ANT IN
IF OUT
VT
CF1
10.7MHz
IF AMP
Q1-4
CF3
10.7MHz
FM IN
FE2
MW/LW FRONTEND
LW SW
Q9
REG
AM OSC
AM RF IN
Q14
LW SW
Q13
MW
SW
Q12
MW
SW
Q11
MW
SW
RV42
FM
TUNED
LEVEL
FM/AM MPX
IC41
FM SD
AM/FM
VCO STOP
IF BUFF
MUTE
AM MIX
AM IF
IFT1
AM IF
AM
SD
RV41
X41
10.7MHz
DET
AM
TUNED
LEVEL
AM
SD
VCO
X42
450kHz
X43
456kHz
STEREO
TUNED
D41
D42
D43
AM/FM
MPX IN
SUB CARRIER
PEAK
CT1701
L1701
TP1701
POLAR
DECODER
IC1701
IN
POUT
L OUT
R OUT
R CH
SUB IN
MON
VCO
ST IND
VCO
STOP
RV1701
SUB CARRIER
LEVEL
TP1702
RV1702
VCO
OUT L
POLAR/PILOT
SWITCH
IC1702
CO
C. COM
C1
A. COM
R CH
C
A
LPF
AMP
IN
L
AMP
OUT
L
SWITCH
Q1701
D1701
D1702
SWITCH
Q1702
SWITCH
Q1703
D1703
D1704
ST-L
STEREO
TUNED
MUTE
X21
4.5MHz
FM
VT1
MW
PLL
IC21
MW
AM OSC
FM
VCO STOP
FM/AM IF
IF REQ
XIN
XOUT
LW/SW
CE
DI
CL
DO
ST-CE
COM-DI
COM-CL
COM-CL
A
MAIN
SECTION
(Page 29)
09
• R CH: Same as L ch
• SIGNAL PATH
⇨: FM
➡: MW

— CD SECTION —


OPTICAL PICK-UP BLOCK
DETECTOR
B+
K
E
A
D
B
C
F
LASER DIODE
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
T+
T−
F−
F+
FOCUS/TRACKING SERVO. RF AMP IC101 (1/2)
PD1
PD2
F
E
FEI
FEO
TEO
TEI
LD
PD
RF O
LOCK
C.OUT
SENS1
SENS2
FE O
FE M
TA M
TA O
DATA
XLT
CLK
FOK
XRST
LD DRIVE Q101
MUTE
TRACKING COIL DRIVE
FOCUS/TRACKING COIL DRIVE IC102 (1/2)
FOCUS COIL DRIVE
SLED/SPINDLE MOTOR DRIVE IC102 (2/2)
SLED MOTOR DRIVE
SPINDLE MOTOR DRIVE
M102 SLED MOTOR
M101 SPINDLE MOTOR
09
SLED SERVO IC101 (2/2)
SL O
SL P
D.OUT
IC841 CD DIGITAL OUT OPTICAL
DOUT
X101 16.9344MHz
XTAI • XTAO
RF
LOCK
CNIN
SEIN
DIGITAL SIGNAL PROCESSOR IC103
DATAO
XLTO
CLKO
MDP
FOK
SPOD
DATA
XLAT
CLOK
SCOR
SQSO
SQCK
SENS
XRST
LOUT1
LOUT2
L-CH
R-CH
S101 LIMIT
CD CLK
CD DATA
SENS2
SCOR
SQ DATA
SQ CLK
SENS
XRST
XLAT
TABLE SENSOR IC702
T. SENS
DISC SENSOR IC703
Q701
DISC SENS
ROTARY ENCODER S811
ENC 1
ENC 2
ENC 3
TURN MOTOR DRIVER IC701
S801 OPEN/CLOSE DET
OPEN
M701 TURN MOTOR
OUT1
OUT2
IN1
IN2
TBL.L
TBL.R
SLIDE MOTOR DRIVER IC801
M801 SLIDE MOTOR
OUT2
OUT1
RIN
FIN
LOAD IN
LOAD OUT
C
MAIN SECTION
(Page 29)

- R CH: Same as L ch
- SIGNAL PATH
  ▨ : CD
  ▨ : Digital out

— DECK SECTION —

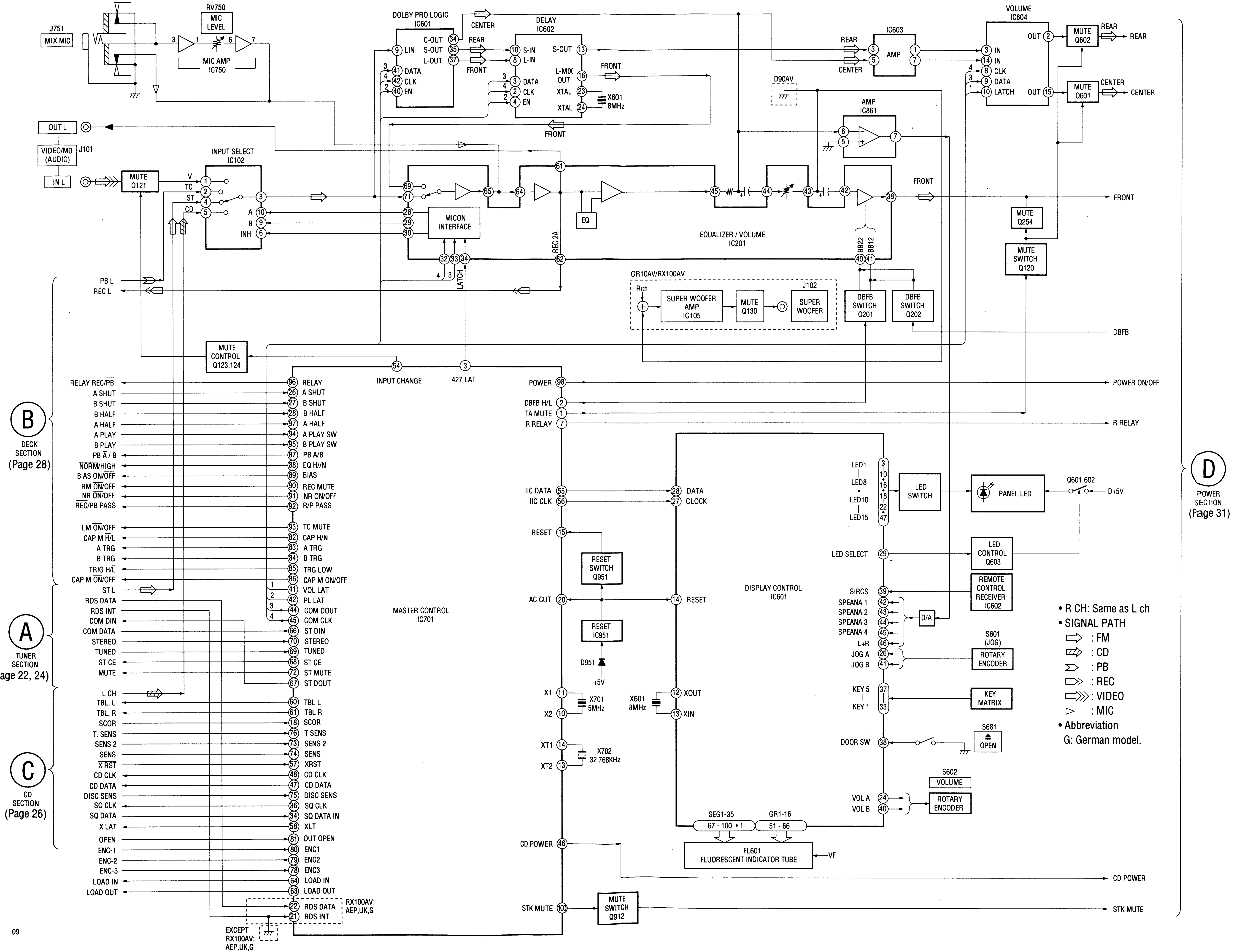

PB A/B
S1004
A CrO2
S1008
B CrO2
CN403
R CH
HP101
PB HEAD
(DECK A)
L
R
R CH
IC611
RV311
PLAYBACK
LEVEL
DECK A
A IN
B IN
PB-A/B
A 120/70
B 120/70
70
120
PAS
DOL
PB OUT
PB L
LM ON/OFF
NORM/HIGH
NR ON/OFF
REC/PB/PASS
DECK PROCESS
IC401
DOLBY NR
RV301
PLAYBACK
LEVEL
DECK B
IC601
REC/PB HEAD
(DECK B)
R CH
RV301
REC LEVEL
RECOUT
DOLBY
TYPE B
PB
RIN
REC L
BIAS ON/OFF
RM ON/OFF
BIAS SW
EQOUT
EQIN
NORM
CROM
IC602
P
R
REC/PB
HRPE101
RELAY REC/PB
RV341
REC
BIAS
CAP M SWITCH
Q405, 407
CAP M ON/OFF
+7.5V
Q623, 901
M1
CAPSTAN
MOTOR
M
SPEED
CONTROL
Q651
SWITCH
Q406
CAP M H / L
REC BIAS
BIAS OSC
T621, Q621, 622
ERASE BIAS
ERASE HEAD
X
RV651
NORMAL
SPEED
RV652
HIGH
SPEED
REEL
DETECT
Q1001
A SHUT
REEL
DETECT
Q1002
B SHUT
S1001 (A PLAY)
+5V
A PLAY
S1002 (B PLAY)
B PLAY
S1003
(A HALF)
A HALF
+5V
S1005
(REC A)
S1006
(B HALF)
BHALF
S1009
(REC B)
M2
TRIGGER
MOTOR
OUT1
OUT2
TRIGGER
MOTOR
DRIVE
IC402
VZ
IN2
IN1
SWITCH
Q408, 409
TRIG H / L
B TRIG
A TRIG
B
MAIN
SECTION
(Page 29)

- R CH : Same as L ch
- SIGNAL PATH

⊳⊳ : PB (DECK A)
▭ : PB (DECK B)
▭> : REC (DECK B)

09

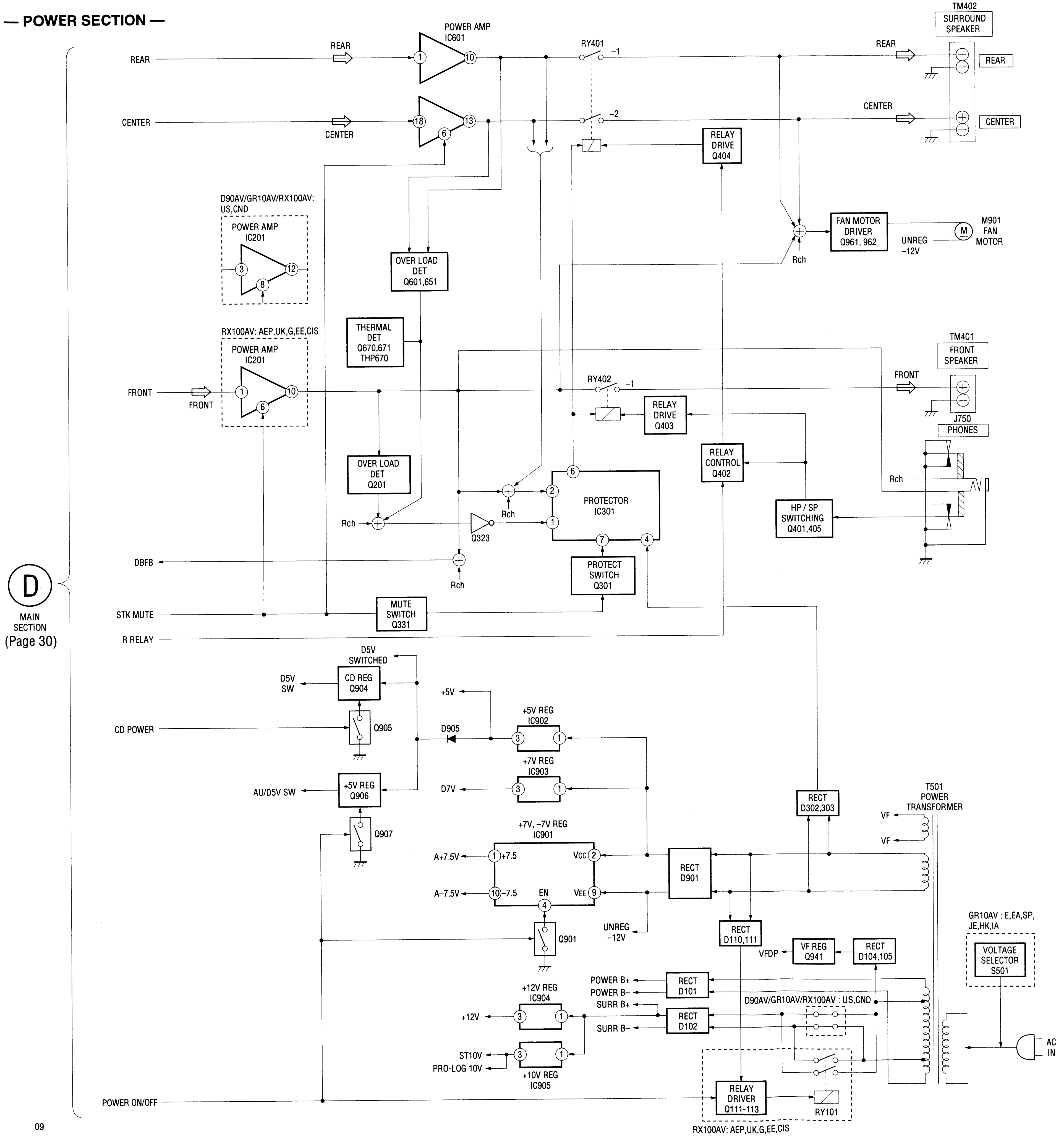
— MAIN SECTION —


J751
MIX MIC
RV750
MIC LEVEL
MIC AMP
IC750
DOLBY PRO LOGIC
IC601
LIN
C-OUT
S-OUT
L-OUT
DATA
CLK
EN
CENTER
REAR
FRONT
DELAY
IC602
S-IN
L-IN
S-OUT
L-MIX OUT
XTAL
X601
8MHz
REAR
CENTER
IC603
AMP
VOLUME
IC604
IN
CLK
DATA
LATCH
OUT
MUTE
Q602
MUTE
Q601
REAR
CENTER
D90AV
AMP
IC861
OUT L
VIDEO/MD (AUDIO)
J101
IN L
MUTE
Q121
INPUT SELECT
IC102
V
TC
ST
CD
A
B
INH
MICON INTERFACE
LATCH
REC 2A
EQ
EQUALIZER / VOLUME
IC201
BB22
BB12
FRONT
MUTE
Q254
MUTE SWITCH
Q120
GR10AV/RX100AV
Rch
SUPER WOOFER AMP
IC105
MUTE
Q130
J102
SUPER WOOFER
DBFB SWITCH
Q201
DBFB SWITCH
Q202
DBFB
PB L
REC L
MUTE CONTROL
Q123,124
INPUT CHANGE
427 LAT
RELAY REC/PB
A SHUT
B SHUT
B HALF
A HALF
A PLAY
B PLAY
PB A / B
NORM/HIGH
BIAS ON/OFF
RM ON/OFF
NR ON/OFF
REC/PB PASS
LM ON/OFF
CAP M H/L
A TRG
B TRG
TRIG H/L
CAP M ON/OFF
ST L
RDS DATA
RDS INT
COM DIN
COM DATA
STEREO
TUNED
ST CE
MUTE
L CH
TBL. L
TBL. R
SCOR
T. SENS
SENS 2
SENS
X RST
CD CLK
CD DATA
DISC SENS
SQ CLK
SQ DATA
X LAT
OPEN
ENC-1
ENC-2
ENC-3
LOAD IN
LOAD OUT
RELAY
A SHUT
B SHUT
B HALF
A HALF
A PLAY SW
B PLAY SW
PB A/B
EQ H/N
BIAS
REC MUTE
NR ON/OFF
R/P PASS
TC MUTE
CAP H/N
A TRG
B TRG
TRG LOW
CAP M ON/OFF
VOL LAT
PL LAT
COM DOUT
COM CLK
ST DIN
STEREO
TUNED
ST CE
ST MUTE
ST DOUT
TBL L
TBL R
SCOR
T SENS
SENS 2
SENS
XRST
CD CLK
CD DATA
DISC SENS
SQ CLK
SQ DATA IN
XLT
OUT OPEN
ENC1
ENC2
ENC3
LOAD IN
LOAD OUT
RDS DATA
RDS INT
RX100AV: AEP,UK,G
EXCEPT RX100AV: AEP,UK,G
MASTER CONTROL
IC701
POWER
DBFB H/L
TA MUTE
R RELAY
IIC DATA
IIC CLK
RESET
AC CUT
X1
X2
X701
5MHz
XT1
XT2
X702
32.768KHz
CD POWER
STK MUTE
RESET SWITCH
Q951
RESET
IC951
D951
+5V
MUTE SWITCH
Q912
DATA
CLOCK
RESET
X601
8MHz
XOUT
XIN
DISPLAY CONTROL
IC601
SEG1-35
67 - 100 • 1
GR1-16
51 - 66
FL601
FLUORESCENT INDICATOR TUBE
VF
LED1
LED8
LED10
LED15
LED SWITCH
PANEL LED
Q601,602
D+5V
LED SELECT
LED CONTROL
Q603
SIRCS
SPEANA 1
SPEANA 2
SPEANA 3
SPEANA 4
L+R
JOG A
JOG B
D/A
REMOTE CONTROL RECEIVER
IC602
S601
(JOG)
ROTARY ENCODER
KEY 5
KEY 1
KEY MATRIX
DOOR SW
S681
OPEN
VOL A
VOL B
S602
VOLUME
ROTARY ENCODER
REAR
CENTER
FRONT
DBFB
POWER ON/OFF
R RELAY
CD POWER
STK MUTE
B
DECK SECTION
(Page 28)
A
TUNER SECTION
(Page 22, 24)
C
CD SECTION
(Page 26)
D
POWER SECTION
(Page 31)

- R CH: Same as L ch
- SIGNAL PATH
  - ⇨ : FM
  - ⇨ : CD
  - ⇨ : PB
  - ⇨ : REC
  - ⇨ : VIDEO
  - ▷ : MIC
- Abbreviation

G: German model.

— POWER SECTION —


REAR
CENTER
FRONT
DBFB
STK MUTE
R RELAY
CD POWER
POWER ON/OFF
D
MAIN SECTION
(Page 30)
POWER AMP IC601
RY401
TM402 SURROUND SPEAKER
REAR
CENTER
RELAY DRIVE Q404
FAN MOTOR DRIVER Q961, 962
UNREG −12V
M901 FAN MOTOR
Rch
D90AV/GR10AV/RX100AV: US,CND
POWER AMP IC201
RX100AV: AEP,UK,G,EE,CIS
POWER AMP IC201
OVER LOAD DET Q601,651
THERMAL DET Q670,671 THP670
OVER LOAD DET Q201
RY402
RELAY DRIVE Q403
RELAY CONTROL Q402
TM401 FRONT SPEAKER
J750 PHONES
HP / SP SWITCHING Q401,405
PROTECTOR IC301
Q323
PROTECT SWITCH Q301
MUTE SWITCH Q331
D5V SWITCHED
D5V SW
CD REG Q904
Q905
+5V
D905
+5V REG IC902
+7V REG IC903
D7V
AU/D5V SW
+5V REG Q906
Q907
+7V, −7V REG IC901
A+7.5V
A−7.5V
VCC
VEE
EN
RECT D901
RECT D302,303
T501 POWER TRANSFORMER
VF
UNREG −12V
Q901
RECT D110,111
VFDP
VF REG Q941
RECT D104,105
GR10AV : E,EA,SP, JE,HK,IA
VOLTAGE SELECTOR S501
AC IN
POWER B+
POWER B−
SURR B+
SURR B−
RECT D101
RECT D102
D90AV/GR10AV/RX100AV : US,CND
+12V REG IC904
+12V
ST10V
PRO-LOG 10V
+10V REG IC905
RELAY DRIVER Q111-113
RY101
RX100AV: AEP,UK,G,EE,CIS

- R CH : Same as L ch
- SIGNAL PATH
  ⇨ : FM
- Abbreviation

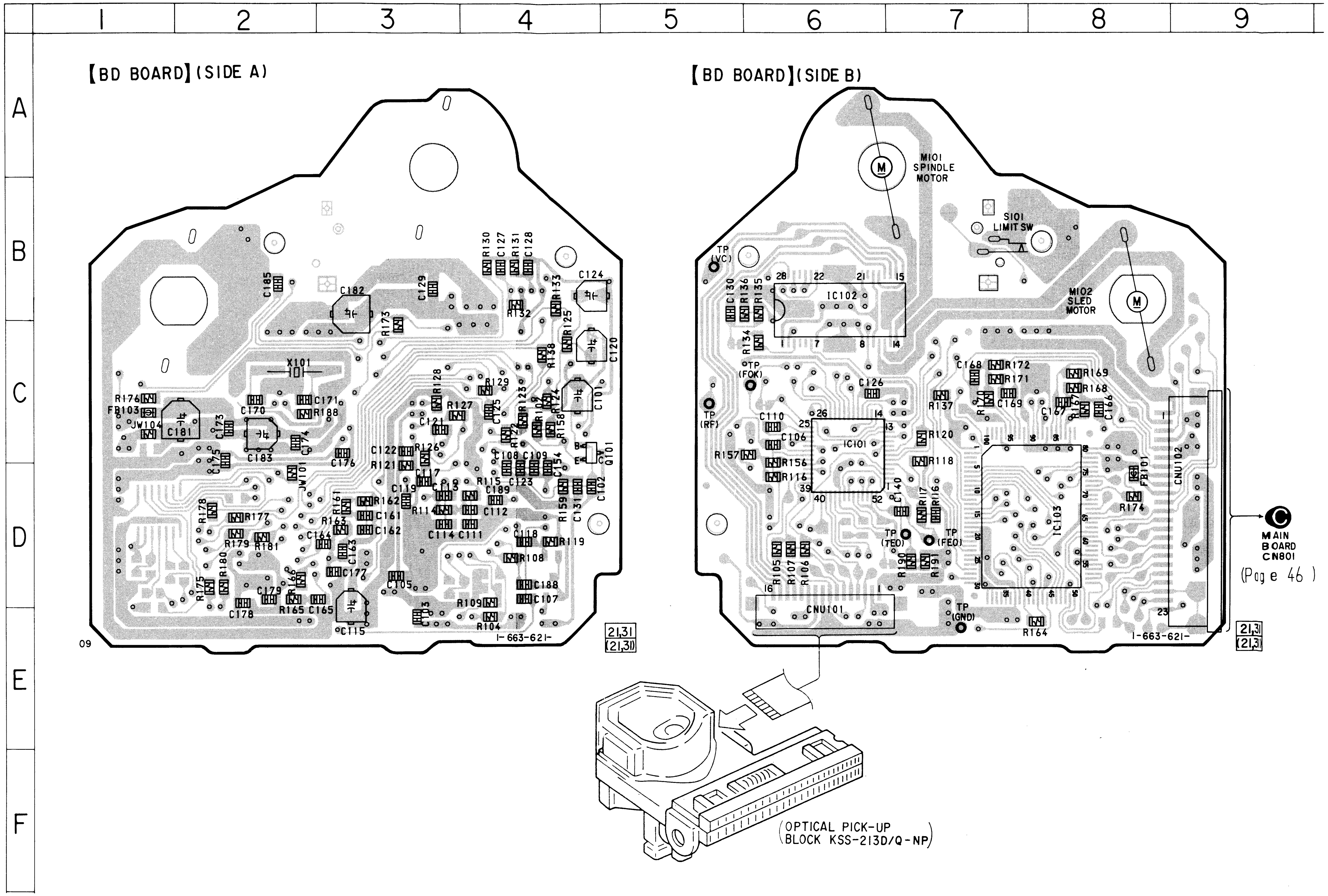
CND: Canadian model.
G : German model.
EE : East European model.
EA : Saudi Arabia model.
SP : Singapore model.
JE : Tourist model.
HK : Hong Kong model.
IA : Indonesian model.

7-3. PRINTED WIRING BOARD — CD SECTION —

• See page 19 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
IC101	C-6
IC102	B-6
IC103	D-8
Q101	C-5

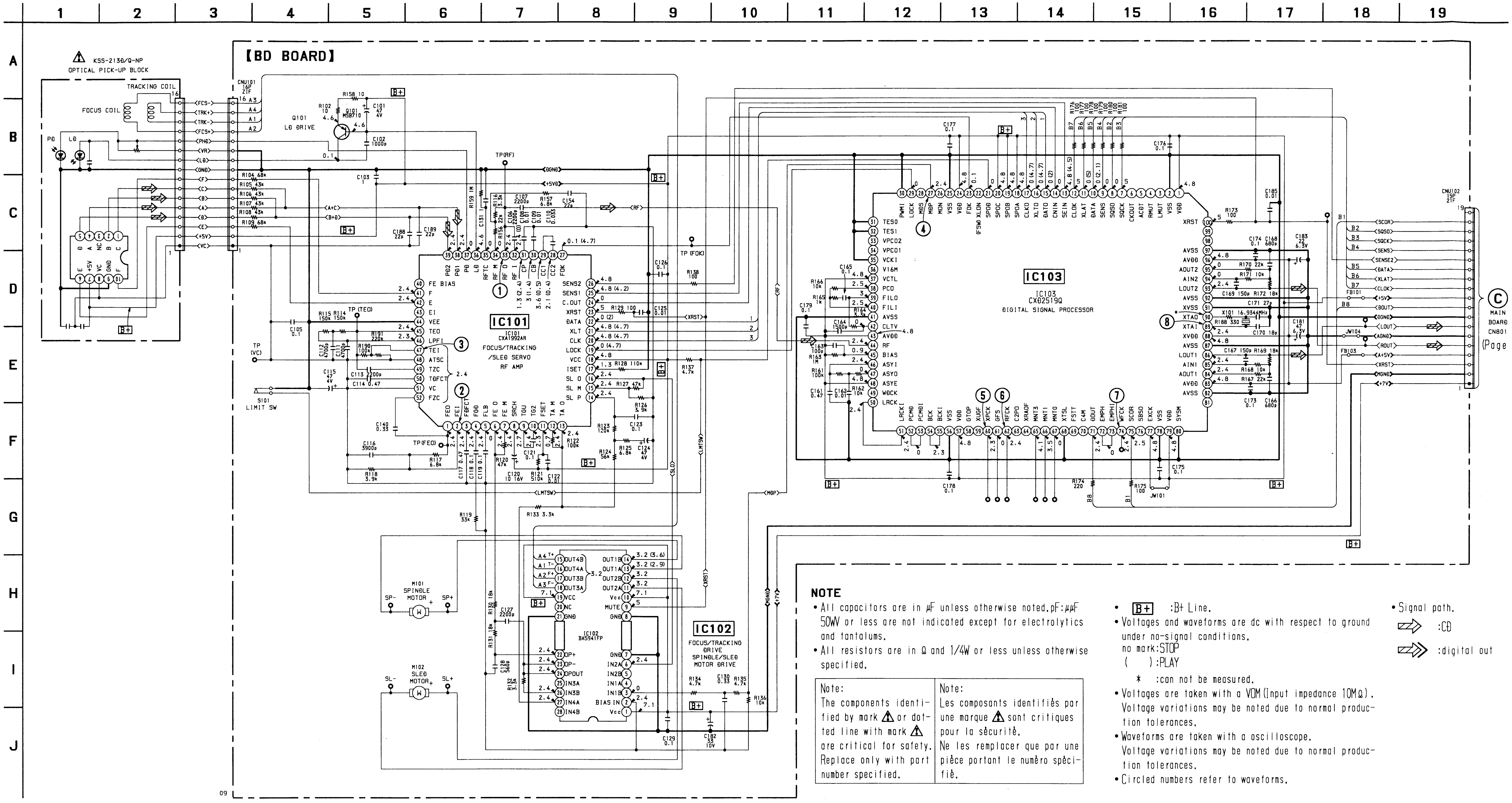

1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
[BD BOARD] (SIDE A)
[BD BOARD] (SIDE B)
M101 SPINDLE MOTOR
S101 LIMIT SW
M102 SLED MOTOR
IC101
IC102
IC103
Q101
X101
CNU101
CNU102
TP (VC)
TP (FOK)
TP (RF)
TP (TEO)
TP (FEO)
TP (GND)
1-663-621-
21,31
MAIN BOARD CN801
(Page 46)
(OPTICAL PICK-UP BLOCK KSS-213D/Q-NP)

Note:

- ○—— : parts extracted from the component side.
- ○ : Through hole.
- ▨ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

7-4. SCHEMATIC DIAGRAM — CD SECTION —

- See page 77 for IC Block Diagrams.
- See page 82 for IC Pin Functions.


【BD BOARD】
KSS-213D/Q-NP
OPTICAL PICK-UP BLOCK
TRACKING COIL
FOCUS COIL
PD
LD
CNJ101 16P ZIF
Q101 LD DRIVE
IC101
CXA1992AR
FOCUS/TRACKING
/SLED SERVO
RF AMP
IC102
BA5941FP
FOCUS/TRACKING
DRIVE
SPINDLE/SLED
MOTOR DRIVE
IC103
CXD2519Q
DIGITAL SIGNAL PROCESSOR
X101 16.9344MHz
S101
LIMIT SW
M101
SPINDLE
MOTOR
M102
SLED
MOTOR
TP (VC)
TP (TEO)
TP (FEO)
TP (RF)
TP (FOK)
CNJ102 19P ZIF
MAIN
BOARD
CN801
(Page 50)

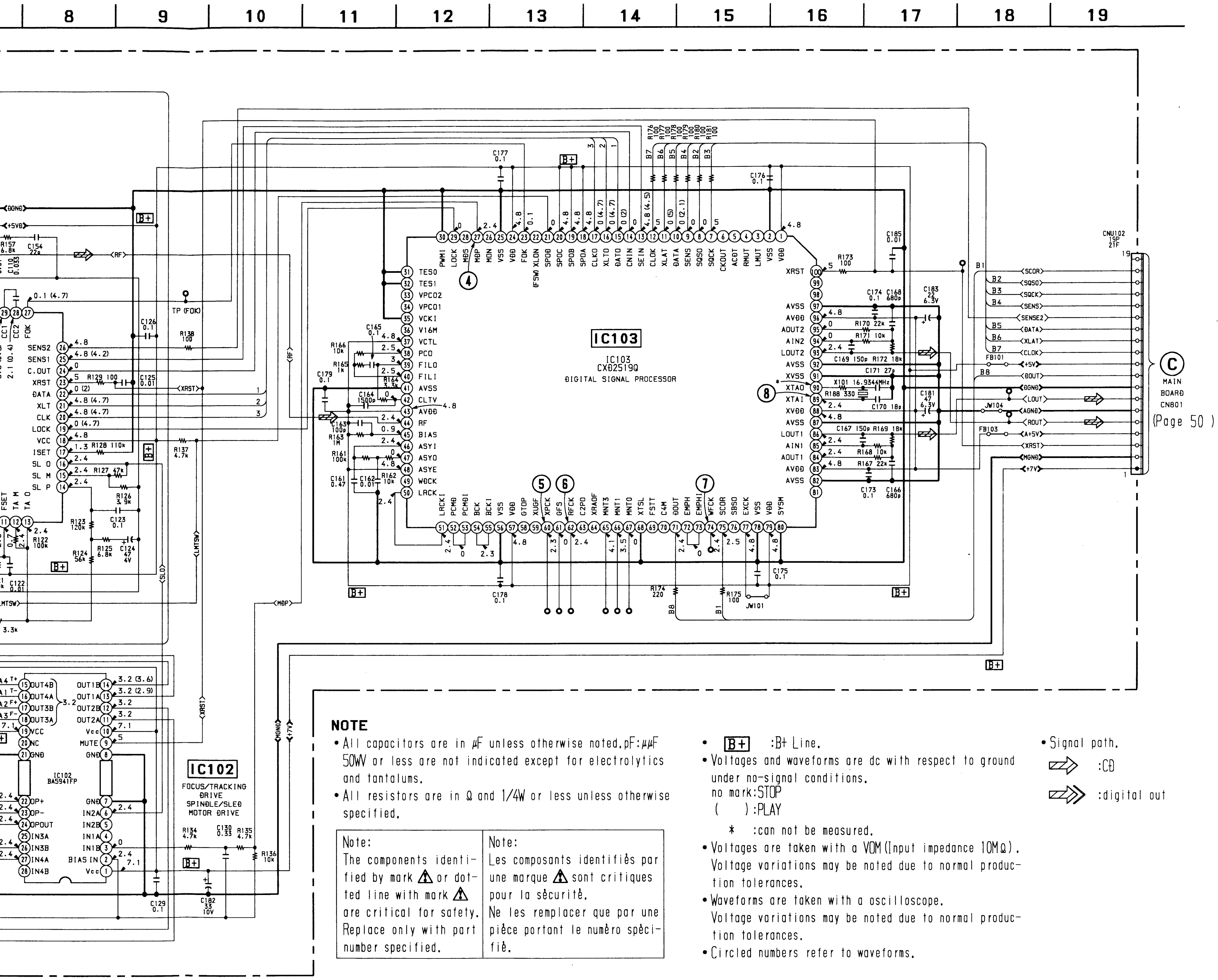
NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiės par une marque ⚠ sont critiques pour la sėcuritė. Ne les remplacer que par une pièce portant le numėro spėcifiė.

- B+ :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: STOP
  (   ) : PLAY
  * :can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

- Signal path.
  ⇨ :CD
  ⇨» :digital out


8
9
10
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12
13
14
15
16
17
18
19
IC103
CXD2519Q
DIGITAL SIGNAL PROCESSOR
IC102
BA5941FP
FOCUS/TRACKING DRIVE SPINDLE/SLED MOTOR DRIVE
CNU102 15P 21F
C
MAIN BOARD CN801
(Page 50)
TP (FOK)
X101 16.9344MHz
B+

NOTE

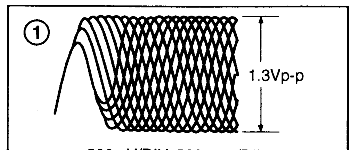
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

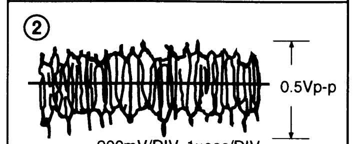
- B+ :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:STOP
  ( ) :PLAY
  * :can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

- Signal path.
  ⇨ :CD
  ⇨⟩ :digital out

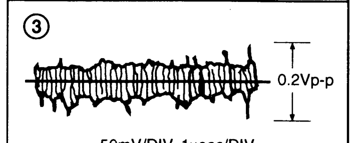
• Waveforms



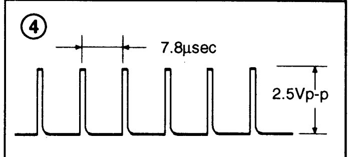
500mV/DIV, 500nsec/DIV
IC101 ㉝ RFO



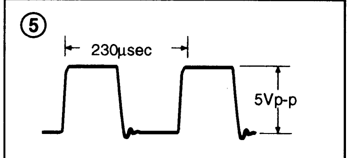
200mV/DIV, 1μsec/DIV
IC101 ② FEI



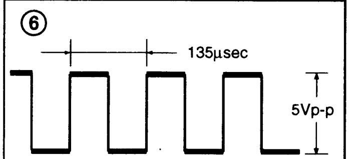
50mV/DIV, 1μsec/DIV
IC101 ㊼ TEI



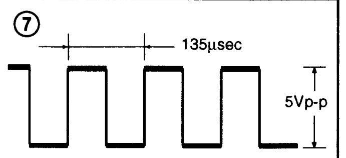
IC103 ㉗ MDP



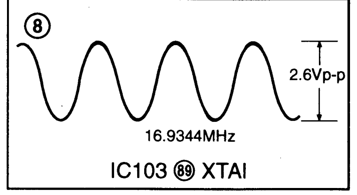
IC103 ㊿ XPCK



IC103 (62) RFCK



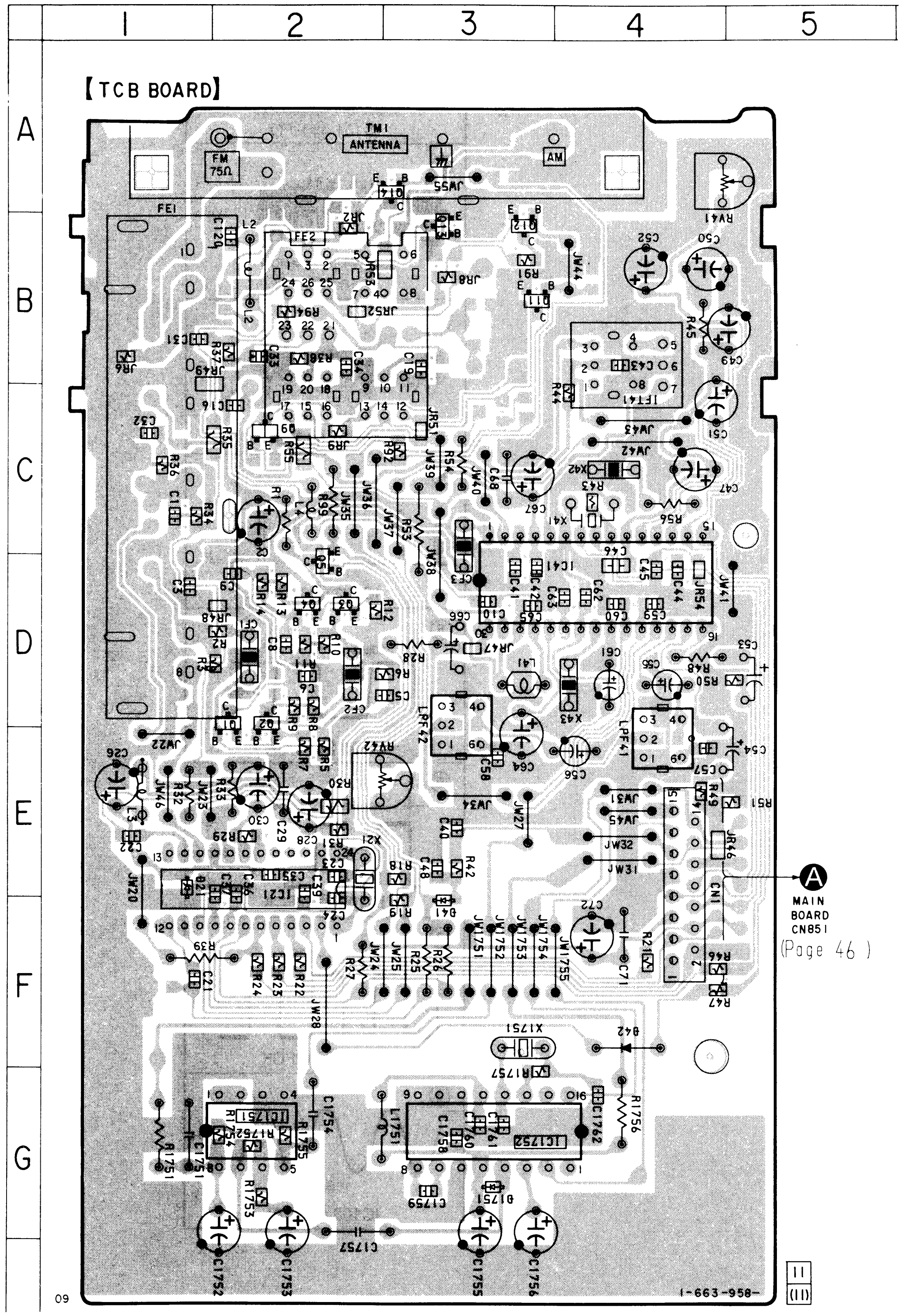
IC103 (74) WFCK



IC103 (89) XTAI

7-5. PRINTED WIRING BOARD — TUNER (AEP, UK, German model) SECTION —

- See page 19 for Circuit Boards Location.

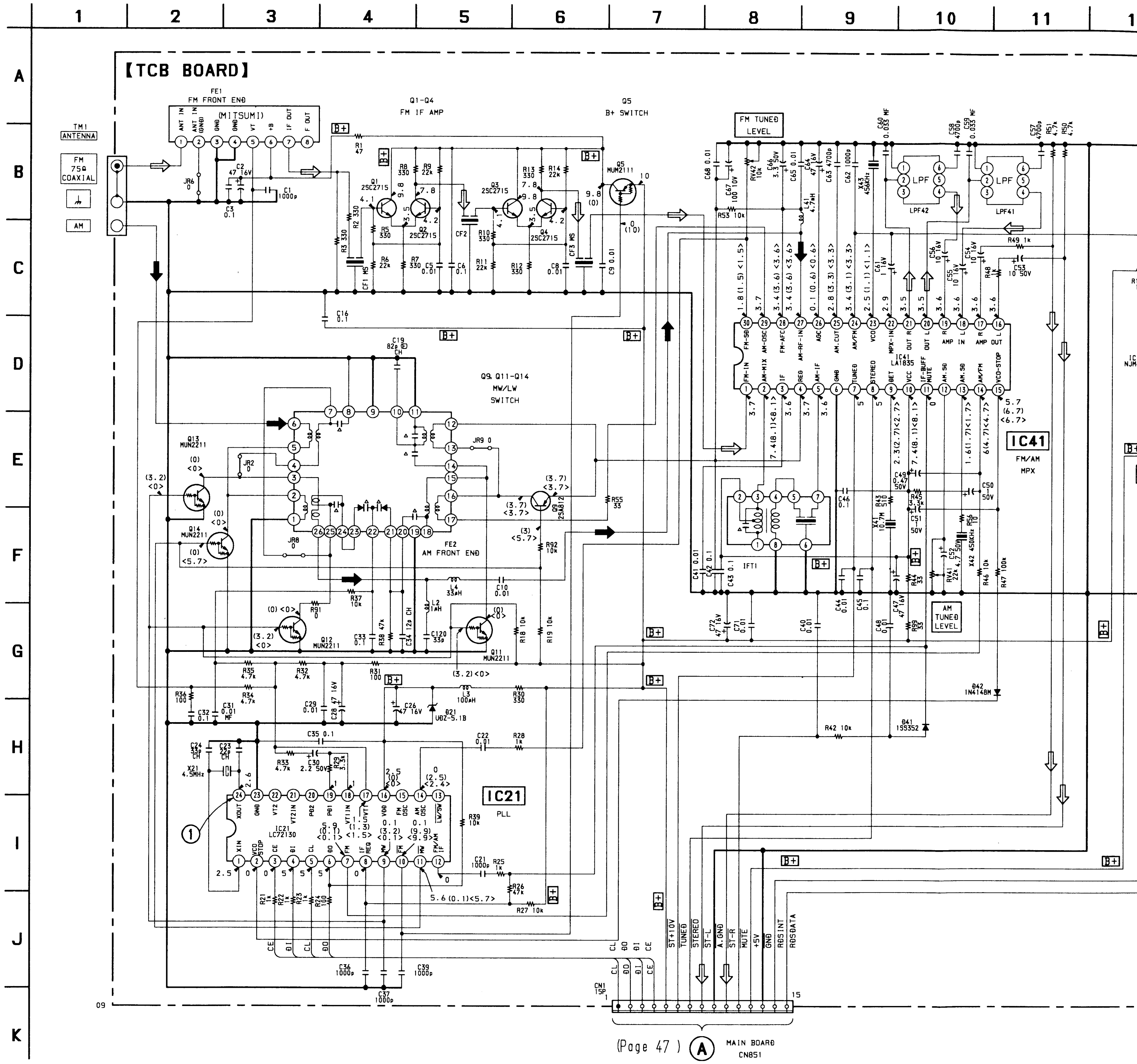

1
2
3
4
5
A
B
C
D
E
F
G
【TCB BOARD】
TM1 ANTENNA
FM 75Ω
AM
FE1
FE2
IC41
IC21
IC1751
IC1752
CN1
Ⓐ
MAIN BOARD CN851
(Page 46)
1-663-958-
11 (11)
09

- **Semiconductor Location**

Ref. No.	Location
D21	E-2
D41	F-3
D42	F-4
D1751	G-3
IC21	F-2
IC41	D-4
IC1751	G-2
IC1752	G-3
Q1	E-2
Q2	E-2
Q3	D-2
Q4	D-2
Q5	D-2
Q9	C-2
Q11	B-3
Q12	B-3
Q13	B-3
Q14	A-3

7-6. SCHEMATIC DIAGRAM — TUNER (AEP, UK, German model) SECTION —

- See page 75 for IC Block Diagrams.


【TCB BOARD】
FE1 FM FRONT END (MITSUMI)
TM1 ANTENNA
FM 75Ω COAXIAL
AM
Q1-Q4 FM IF AMP
Q5 B+ SWITCH
FM TUNED LEVEL
LPF42
LPF41
IC41 LA1835
IC41 FM/AM MPX
Q9, Q11-Q14 MW/LW SWITCH
FE2 AM FRONT END
IFT1
AM TUNED LEVEL
IC21 LC72130
IC21 PLL
X21 4.5MHz
CN1
(Page 47) Ⓐ MAIN BOARD CN851
09

Note:

- o—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.

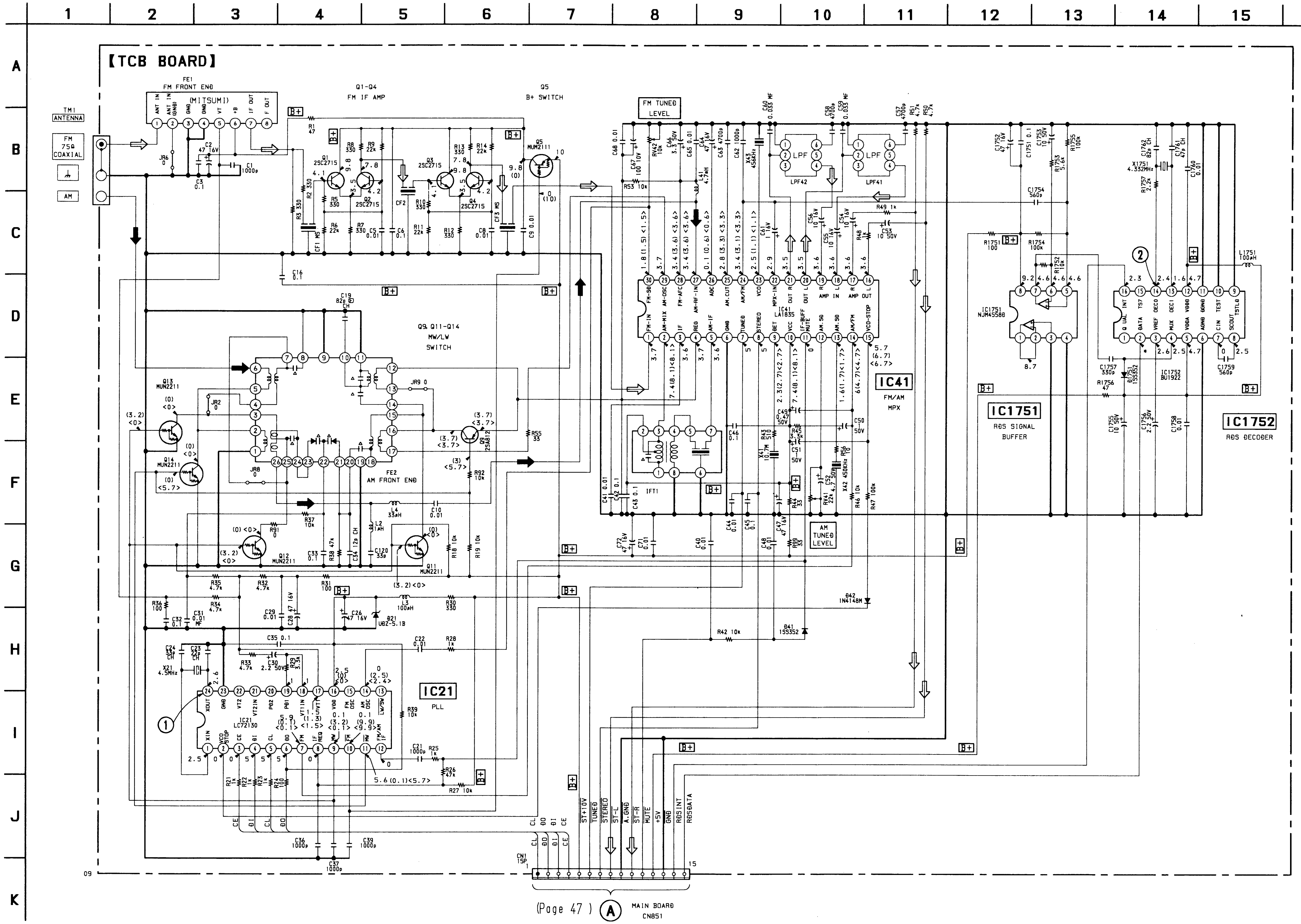
Semiconductor Location

Ref. No.	Location
D21	E-2
D41	F-3
D42	F-4
D1751	G-3
IC21	F-2
IC41	D-4
IC1751	G-2
IC1752	G-3
Q1	E-2
Q2	E-2
Q3	D-2
Q4	D-2
Q5	D-2
Q9	C-2
Q11	B-3
Q12	B-3
Q13	B-3
Q14	A-3

mponent side.
h enable seeing.

7-6. SCHEMATIC DIAGRAM — TUNER (AEP, UK, German model) SECTION —

• See page 75 for IC Block Diagrams.

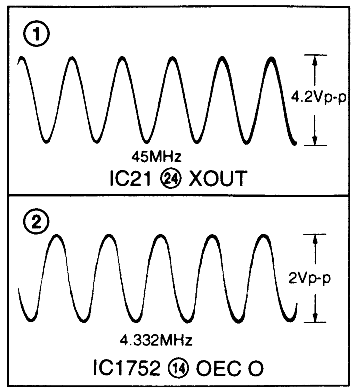


【TCB BOARD】
FE1 FM FRONT END (MITSUMI)
Q1-Q4 FM IF AMP
Q5 B+ SWITCH
Q9, Q11-Q14 MW/LW SWITCH
FE2 AM FRONT END
TM1 ANTENNA
FM 75Ω COAXIAL
AM
FM TUNED LEVEL
AM TUNED LEVEL
LPF42
LPF41
IC41 FM/AM MPX
IC41 LA1835
IC1751 RDS SIGNAL BUFFER
IC1751 NJM4558
IC1752 RDS DECODER
IC1752 BU1922
IC21 PLL
IC21 LC72130
X21 4.5MHz
X1751 4.332MHz
IFT1
CN1 15P
(Page 47) Ⓐ MAIN BOARD CN851
ST+10V
TUNED
STEREO
ST-L
A.GND
ST-R
MUTE
+5V
GND
RDSINT
RDSDATA
CE
DI
CL
DO
①
②

NOTE

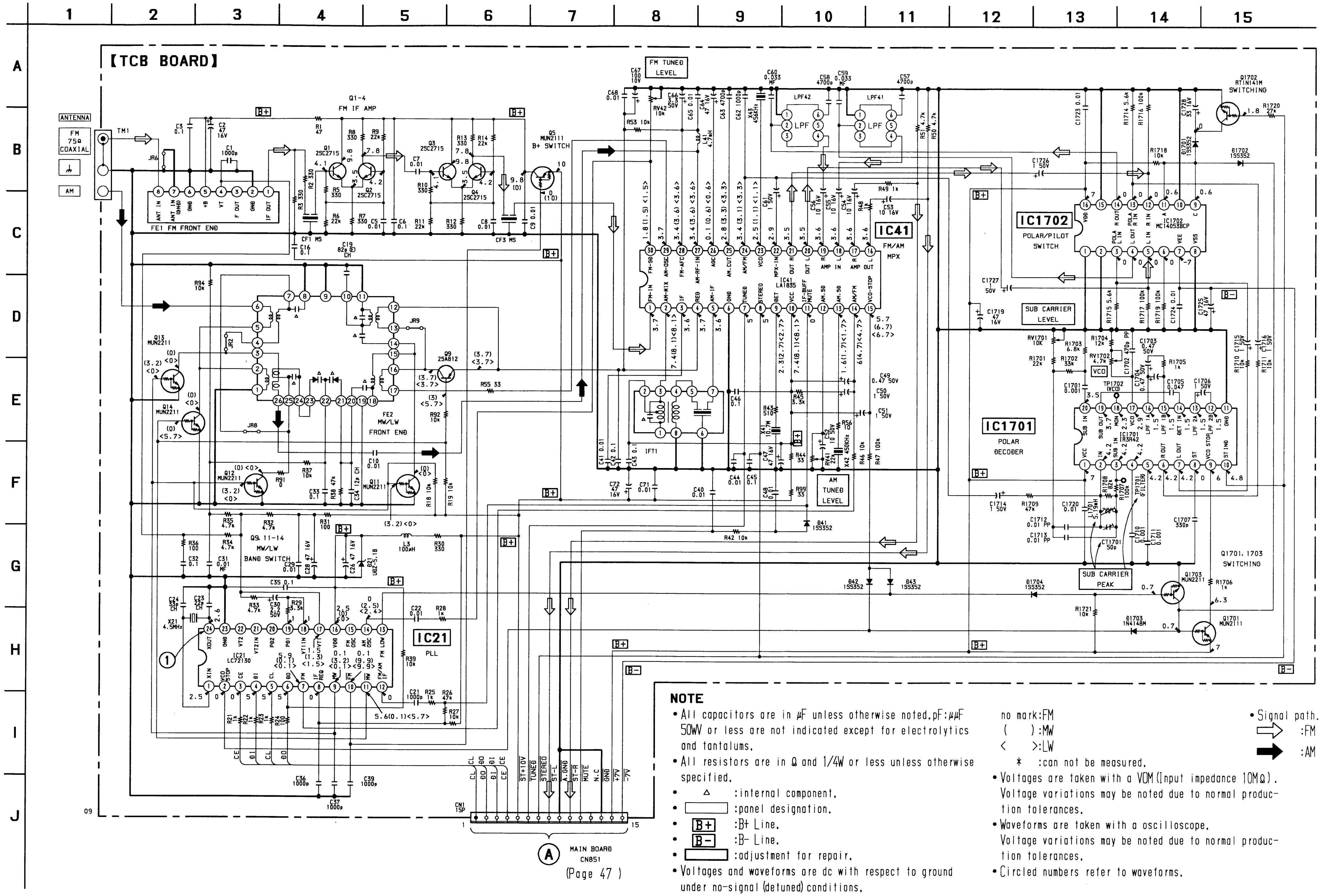
- All capacitors are in μF unless otherwise noted. pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ▭ :panel designation.
- B+ :B+ Line.
- ▬ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark:FM
  ( ) :MW
  < > :LW
  * :can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ :FM
  ➡ :AM

• Waveforms



7-7. SCHEMATIC DIAGRAM — TUNER (East European, CIS model) SECTION —

- See page 75 for IC Block Diagrams.


[TCB BOARD]
ANTENNA
FM 75Ω COAXIAL
AM
TM1
FE1 FM FRONT END
Q1-4 FM IF AMP
Q5 MUN2111 B+ SWITCH
FM TUNED LEVEL
LPF42
LPF41
IC41 LA1835 FM/AM MPX
IC1702 POLAR/PILOT SWITCH
SUB CARRIER LEVEL
IC1701 POLAR DECODER
SUB CARRIER PEAK
Q1702 RT1N141M SWITCHING
Q1701, 1703 SWITCHING
Q9 2SA812
FE2 MW/LW FRONT END
Q8, 11-14 MW/LW BAND SWITCH
IC21 LC72130 PLL
AM TUNED LEVEL
IFT1
CN1 15P
A MAIN BOARD CN851
(Page 47)

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ▭ :panel designation.
- B+ :B+ Line.
- B− :B− Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.

no mark:FM
( ):MW
< >:LW
* :can not be measured.

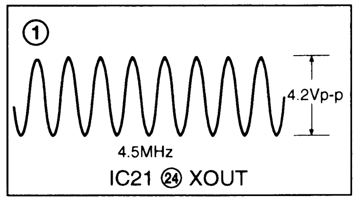
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

- Signal path.

⇨ :FM

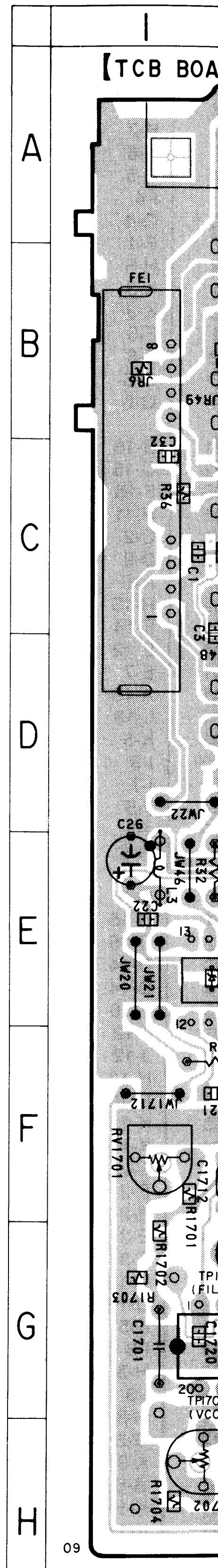
➡ :AM

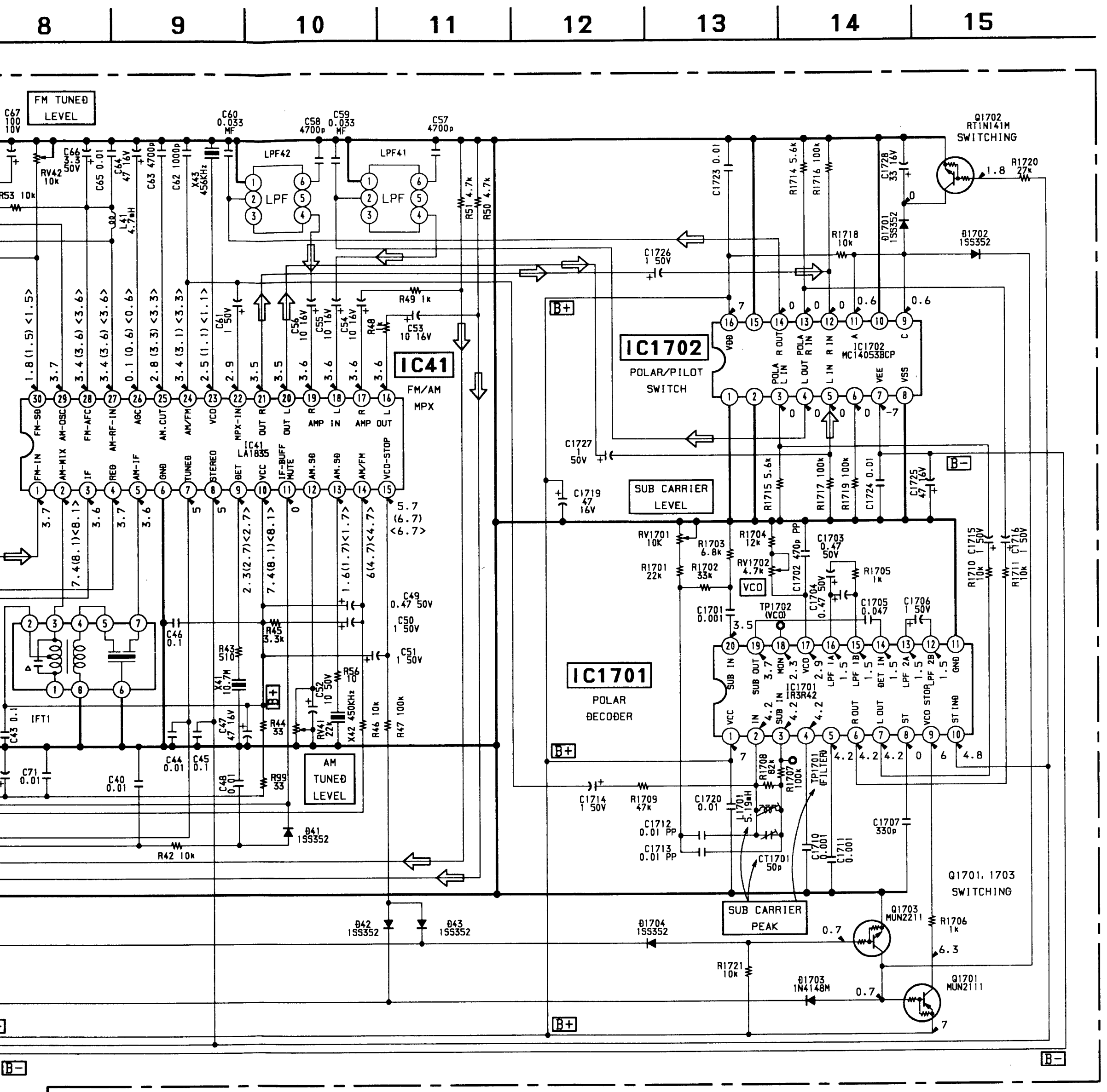
- **Waveform**



7-8. PRINTED

- See page


[TCB BOA
FE1
JR6
C32
R36
C26
JW22
JW20
JW21
RV1701
R1701
R1702
R1703
C1701
TP17
R1704
09


8
9
10
11
12
13
14
15
FM TUNED LEVEL
LPF42
LPF41
Q1702
RT1N141M
SWITCHING
IC1702
POLAR/PILOT SWITCH
IC41
FM/AM
MPX
IC41
LA1835
SUB CARRIER LEVEL
IC1701
POLAR DECODER
IC1701
IR3R42
AM TUNED LEVEL
IFT1
SUB CARRIER PEAK
Q1701, 1703
SWITCHING
B+
B-

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ▭ :panel designation.
- B+ :B+ Line.
- B- :B- Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.

no mark:FM
( ) :MW
< >:LW
* :can not be measured.

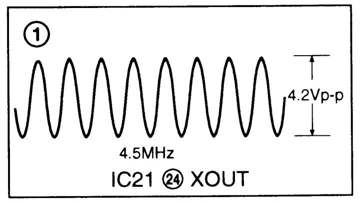
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

- Signal path.

⇨ :FM

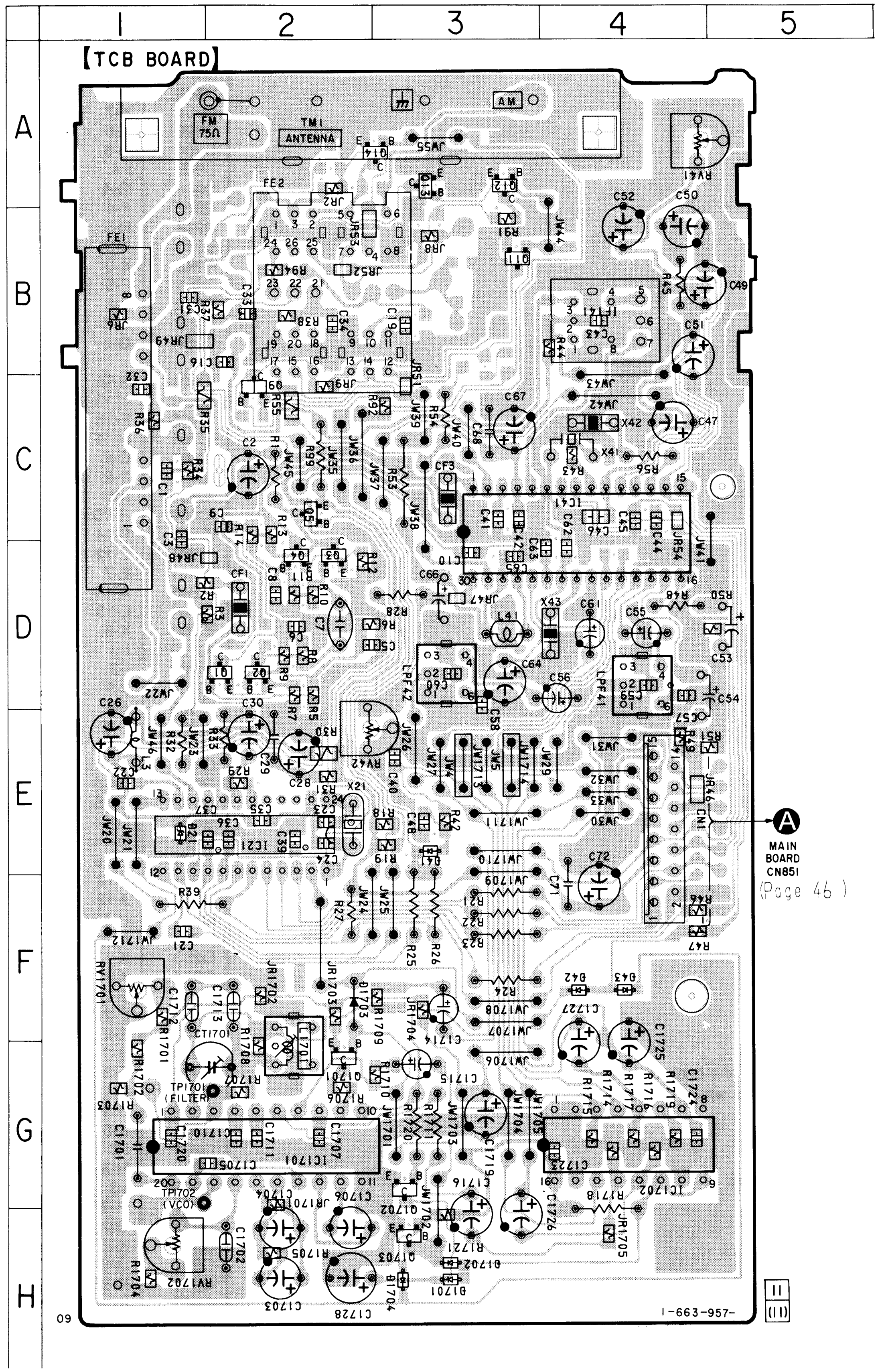
➡ :AM

- **Waveform**



7-8. PRINTED WIRING BOARD — TUNER (East European, CIS model) SECTION —

- **See page 19 for Circuit Boards Location.**


1
2
3
4
5
A
B
C
D
E
F
G
H
【TCB BOARD】
FM 75Ω
TM1 ANTENNA
AM
IC21
IC41
IC1701
IC1702
A
MAIN BOARD CN851
(Page 46)
1-663-957-
11
(11)
09

- **Semiconductor Location**

Ref. No.	Location
D21	E-1
D41	E-3
D42	F-4
D43	F-4
D1701	H-3
D1702	H-3
D1703	F-2
D1704	H-3
IC21	E-2
IC41	C-4
IC1701	G-2
IC1702	G-4
Q1	D-2
Q2	D-2
Q3	D-2
Q4	D-2
Q5	C-2
Q9	C-2
Q11	B-3
Q12	A-3
Q13	A-3
Q14	A-3
Q1701	G-2
Q1702	H-3
Q1703	H-3

Note:

- ○— : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.

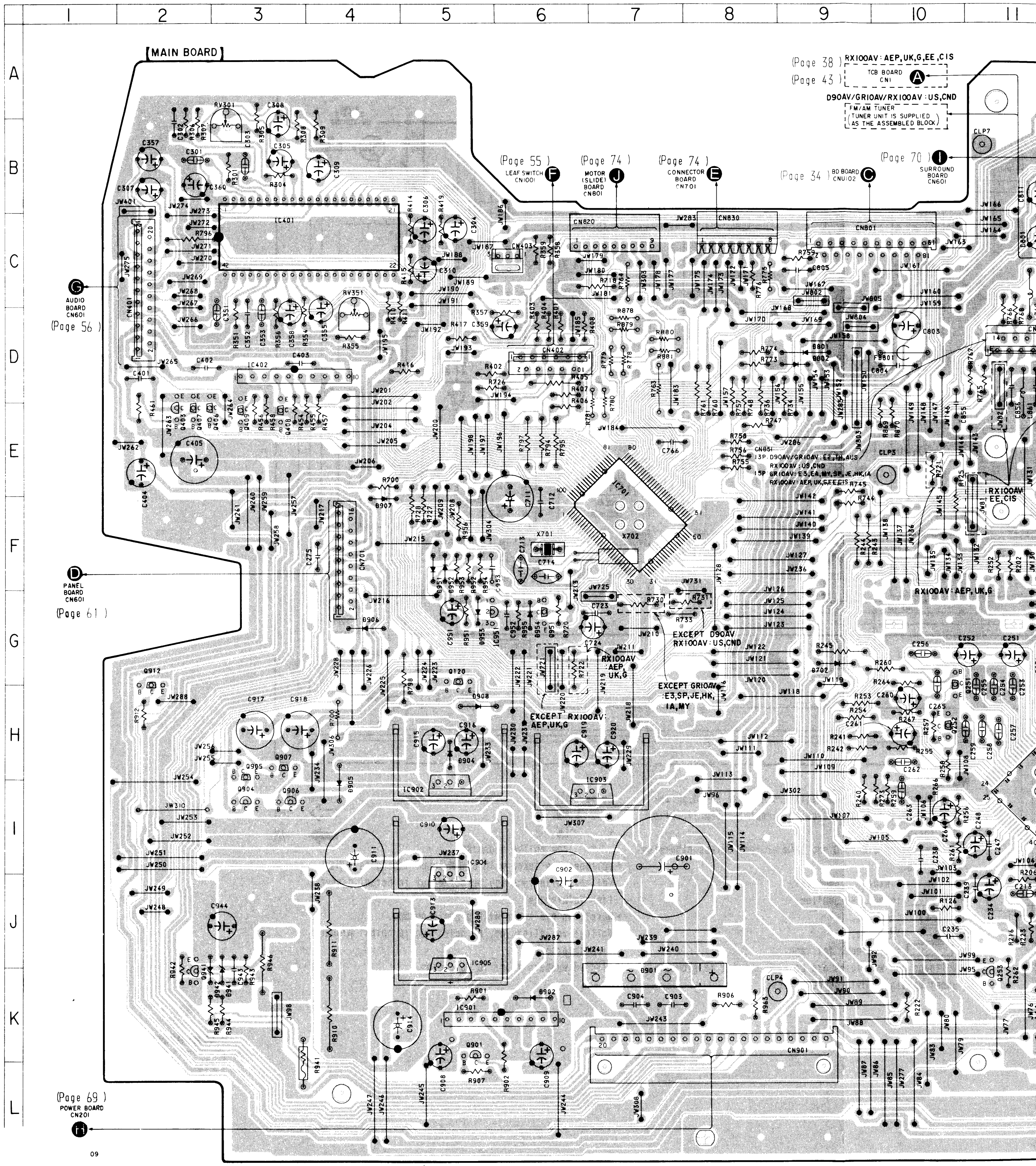
- **Semiconductor Location**

Ref. No.	Location
D702	G-9
D772	C-11
D801	D-9
D802	D-9
D901	K-7
D902	K-6
D904	H-5
D905	I-4
D906	G-4
D907	F-4
D908	H-5
D941	K-3
D942	K-3
D951	F-5
D952	F-5
D953	G-5
D954	G-6
IC101	B-15
IC102	C-15
IC105	F-15
IC201	H-11
IC401	C-2
IC402	D-2
IC601	I-15
IC602	H-15
IC603	F-14
IC604	E-12
IC701	E-7
IC841	A-16
IC861	L-13
IC901	K-5
IC902	I-5
IC903	I-7
IC904	J-5
IC905	J-5
IC951	G-5
Q120	G-5
Q121	D-15
Q122	D-15
Q123	D-14
Q124	D-14
Q130	E-16
Q201	J-12
Q202	J-12
Q251	H-10
Q252	H-10
Q253	K-11
Q254	K-11
Q403	E-2
Q406	E-2
Q407	E-2
Q408	E-3
Q409	E-3
Q601	D-12
Q602	D-13
Q901	K-5
Q904	I-3
Q905	H-3
Q906	I-3
Q907	H-3
Q912	G-2
Q941	K-2
Q951	G-6
Q961	K-15
Q962	K-15

Note:
- •—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.
- Abbreviation
  - CND : Canadian model.
  - G : German model.
  - EE : East European model.
  - AUS : Australian model.
  - EA : Saudi Arabia model.
  - SP : Singapore model.
  - JE : Tourist model.
  - HK : Hong Kong model.
  - IA : Indonesia model.
  - MY : Malaysia model.
  - TH : Thailand model.
  - E2 : Without SW tuner E model.
  - E3 : With SW tuner E model.

7-9. PRINTED WIRING BOARD — MAIN SECTION —

- **See page 19 for Circuit Boards Location.**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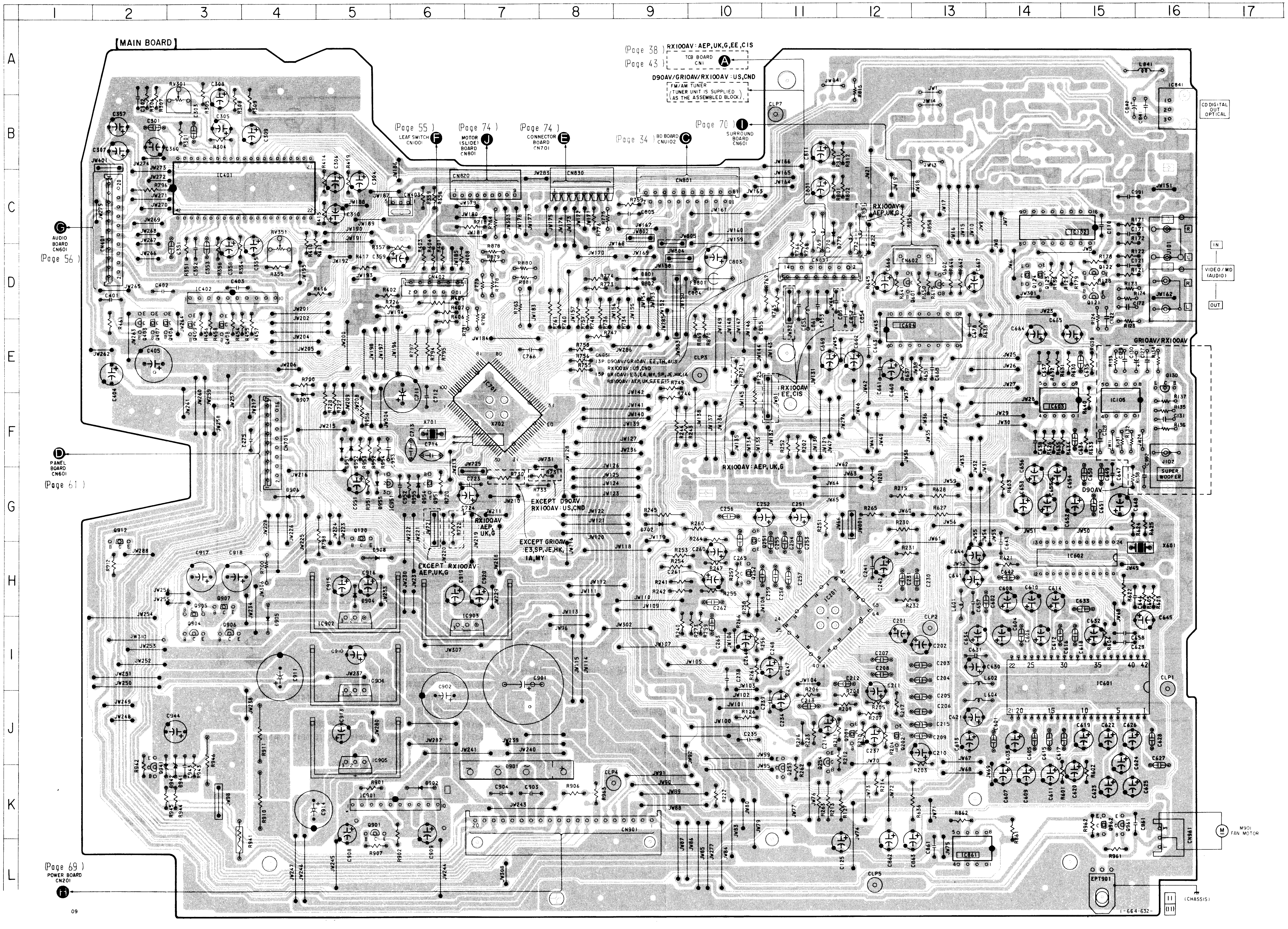
10
11
A
B
C
D
E
F
G
H
I
J
K
L
MAIN BOARD
(Page 38) RX100AV: AEP,UK,G,EE,CIS
(Page 43) TCB BOARD CN1 A
D90AV/GR10AV/RX100AV: US,CND
FM/AM TUNER
TUNER UNIT IS SUPPLIED AS THE ASSEMBLED BLOCK
CLP7
(Page 55) LEAF SWITCH CN1001 F
(Page 74) MOTOR (SLIDE) BOARD CN801 J
(Page 74) CONNECTOR BOARD CN701 E
(Page 34) BD BOARD CN1102 C
(Page 70) SURROUND BOARD CN601 I
G AUDIO BOARD CN601 (Page 56)
D PANEL BOARD CN601 (Page 61)
(Page 69) POWER BOARD CN201 H
IC401
IC402
IC701
IC902
IC903
IC905
IC901
CN401
CN402
CN403
CN820
CN830
CN801
CN901
CN701
X701
X702
CLP5
CLP4
CN851 13P: D90AV/GR10AV: E2,TH,AUS
RX100AV: US,CND
15P: GR10AV: E3,EA,MY,SP,JE,HK,IA
RX100AV: AEP,UK,G,EE,CIS
RX100AV EE,CIS
RX100AV: AEP,UK,G
EXCEPT D90AV
RX100AV: US,CND
RX100AV AEP,UK,G
EXCEPT GR10AV: E3,SP,JE,HK,IA,MY
EXCEPT RX100AV: AEP,UK,G
09

conductor
tion

o.	Location
	G-9
	C-11
	D-9
	D-9
	K-7
	K-6
	H-5
	I-4
	G-4
	F-4
	H-5
	K-3
	K-3
	F-5
	F-5
	G-5
	G-6
	B-15
	C-15
	F-15
	H-11
	C-2
	D-2
	I-15
	H-15
	F-14
	E-12
	E-7
	A-16
	L-13
	K-5
	I-5
	I-7
	J-5
	J-5
	G-5
	G-5
	D-15
	D-15
	D-14
	D-14
	E-16
	J-12
	J-12
	H-10
	H-10
	K-11
	K-11
	E-2
	E-2
	E-2
	E-3
	E-3
	D-12
	D-13
	K-5
	I-3
	H-3
	I-3
	H-3
	G-2
	K-2
	G-6
	K-15
	K-15

7-9. PRINTED WIRING BOARD — MAIN SECTION —

• See page 19 for Circuit Boards Location.

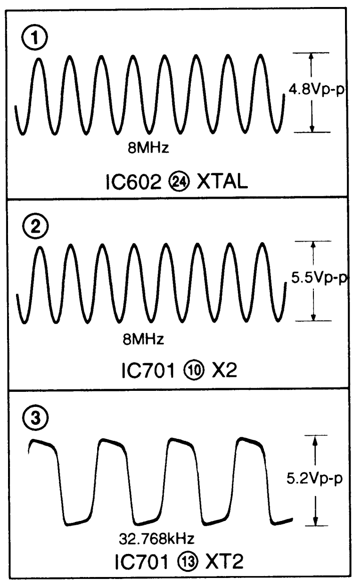


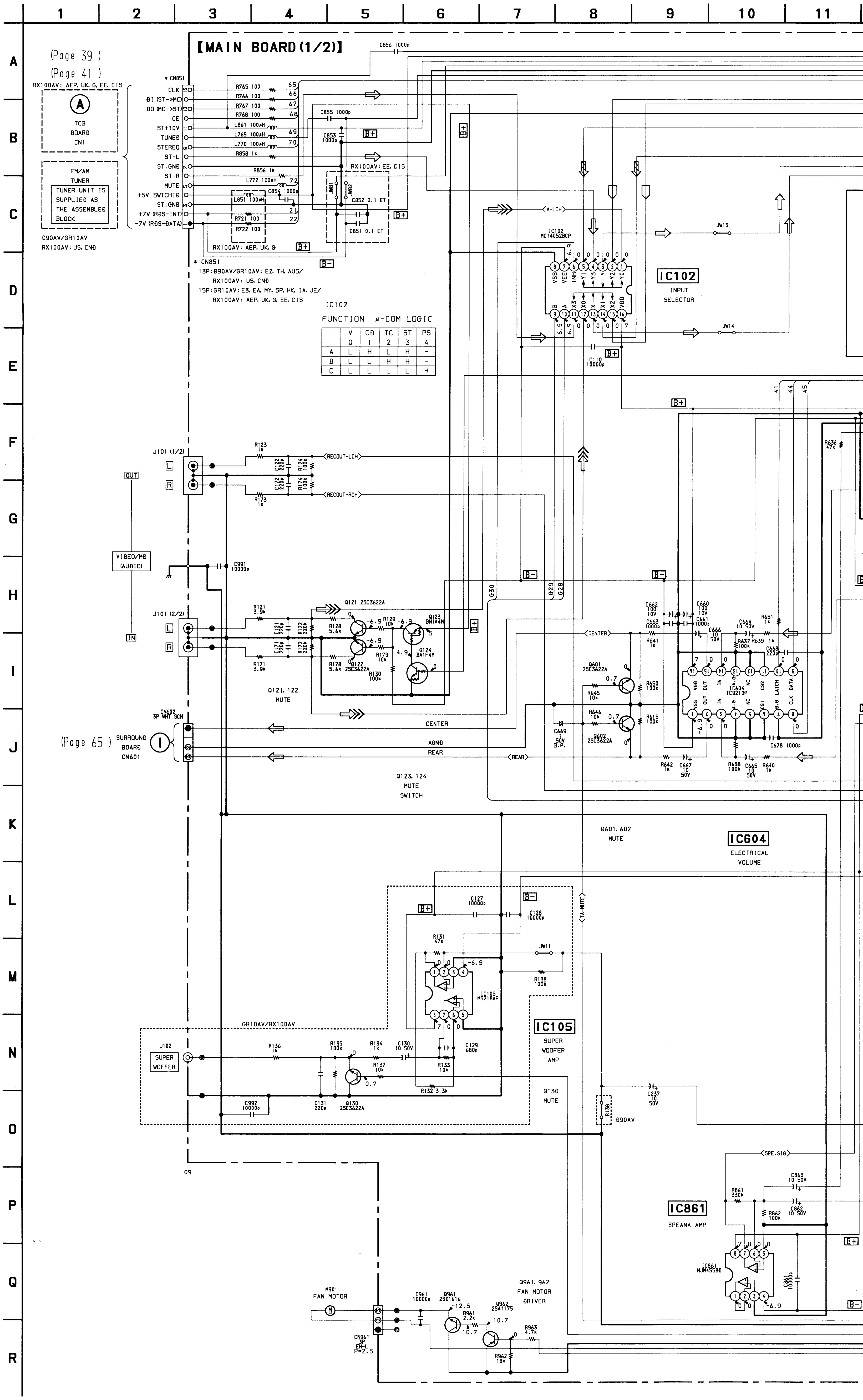
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
A B C D E F G H I J K L
[MAIN BOARD]
(Page 38) (Page 43) RX100AV: AEP,UK,G,EE,CIS TCB BOARD CN1 A
D90AV/GR10AV/RX100AV: US,CND
FM/AM TUNER (TUNER UNIT IS SUPPLIED AS THE ASSEMBLED BLOCK)
(Page 55) LEAF SWITCH CN1001 F
(Page 74) MOTOR (SLIDE) BOARD CN801 J
(Page 74) CONNECTOR BOARD CN701 E
(Page 34) BD BOARD CNU102 C
(Page 70) SURROUND BOARD CN601 I
G AUDIO BOARD CN601 (Page 56)
D PANEL BOARD CN601 (Page 61)
(Page 69) POWER BOARD CN201 H
IC401
IC402
IC701
IC201
IC601
IC602
IC604
IC102
IC103
IC105
IC861
IC901
IC902
IC903
IC904
IC905
IC841
CN801
CN901
CN961
EXCEPT D90AV RX100AV: US,CND
EXCEPT GR10AV: E3,SP,JE,HK,IA,MY
EXCEPT RX100AV: AEP,UK,G
RX100AV: AEP,UK,G
RX100AV EE,CIS
GR10AV/RX100AV
D90AV
CD DIGITAL OUT OPTICAL
IN
VIDEO/MD (AUDIO)
OUT
SUPER WOOFER
M901 FAN MOTOR
EPT901
(CHASSIS)
1-664-632-
09

7-10. SCHEMATIC DIAGRAM — MAIN SECTION —

- See page 79 for IC Block Diagrams.
- See page 88 for IC Pin Functions.

• Waveforms

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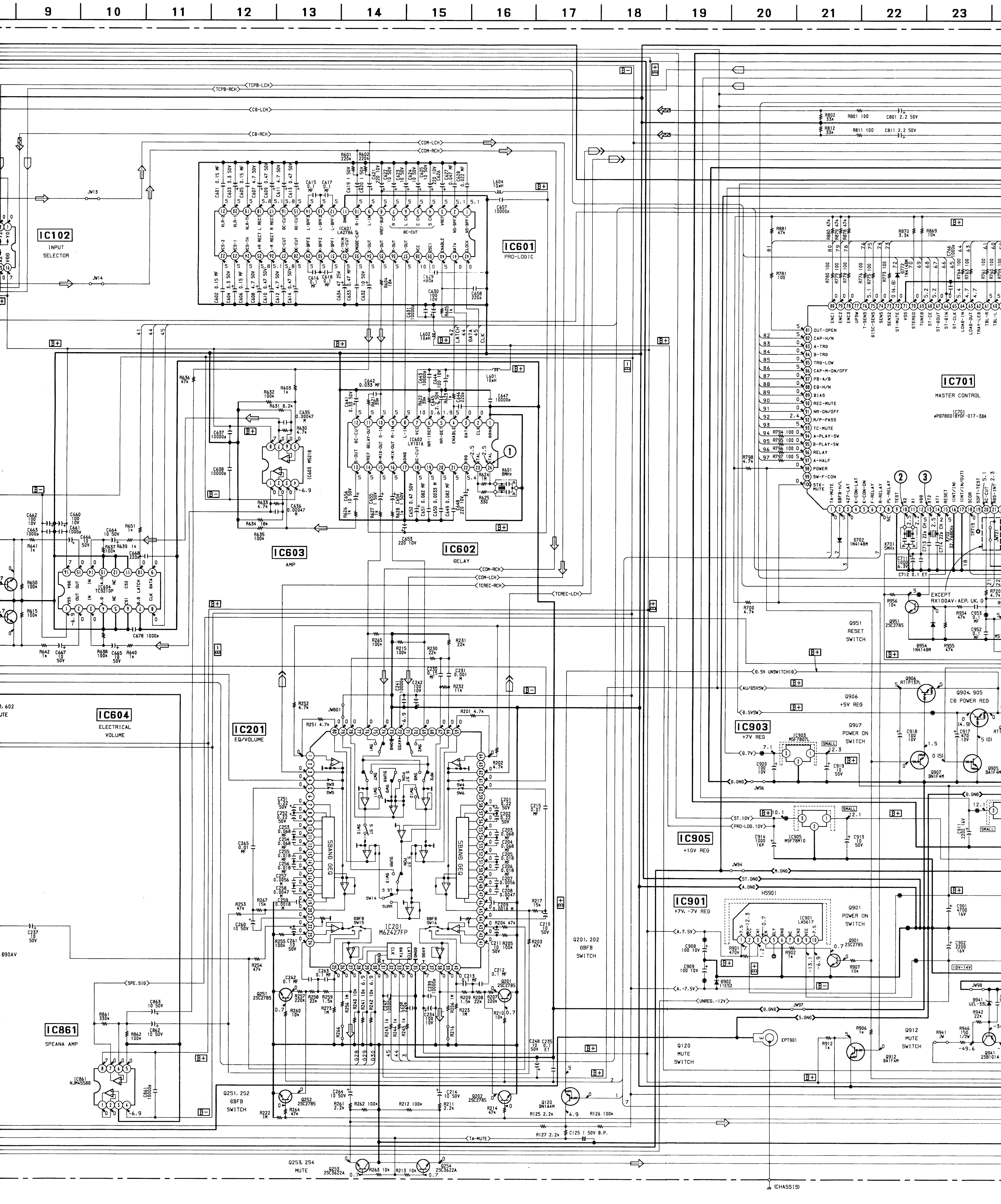
I
J
K
L
M
N
O
P
Q
R
【MAIN BOARD (1/2)】
(Page 39)
(Page 41)
RX100AV: AEP, UK, G, EE, CIS
Ⓐ
TCB BOARD CN1
FM/AM TUNER
TUNER UNIT IS SUPPLIED AS THE ASSEMBLED BLOCK
D90AV/GR10AV
RX100AV: US, CND
* CN851
CLK
DI (ST->MC)
DO (MC->ST)
CE
ST+10V
TUNED
STEREO
ST-L
ST.GND
ST-R
MUTE
+5V SWTCHID
ST.GND
+7V (RDS-INT)
-7V (RDS-DATA)
R765 100
R766 100
R767 100
R768 100
L861 100μH
L769 100μH
L770 100μH
R858 1k
R856 1k
L772 100μH
L851 100μH
R721 100
R722 100
C856 1000p
C855 1000p
C853 1000p
C854 1000p
C852 0.1 ET
C851 0.1 ET
JW81
JW82
RX100AV: EE, CIS
RX100AV: AEP, UK, G
* CN851
13P: D90AV/GR10AV: E2, TH, AUS/
RX100AV: US, CND
15P: GR10AV: E3, EA, MY, SP, HK, IA, JE/
RX100AV: AEP, UK, G, EE, CIS
IC102 MC14052BCP
IC102 INPUT SELECTOR
C110 10000p
JW13
JW14
J101 (1/2)
OUT
VIDEO/MD (AUDIO)
IN
RECOUT-LCH
RECOUT-RCH
R123 1k
R173 1k
C991 10000p
J101 (2/2)
R121 3.9k
R171 3.9k
R128 5.6k
R178 5.6k
Q121 2SC3622A
Q122 2SC3622A
Q123 BN1A4M
Q124 BA1F4M
R129 10k
R179 10k
R130 100k
Q121, 122 MUTE
Q123, 124 MUTE SWITCH
CN602 3P WHT SCN
(Page 65) SURROUND BOARD CN601
CENTER
AGND
REAR
Q601 2SC3622A
Q602 2SC3622A
R641 1k
R645 10k
R646 10k
R650 100k
R615 100k
C669 50V B.P.
R642 1k
C667 10 50V
R638 100k
C665 10 50V
R640 1k
C678 1000p
C662 100 10V
C663 1000p
C660 100 10V
C661 1000p
C666 10 50V
C664 10 50V
R651 1k
R637 100k
R639 1k
C668 220p
R636 47k
IC604 TC9210P
Q601, 602 MUTE
IC604 ELECTRICAL VOLUME
TA-MUTE
C127 10000p
C128 10000p
R131 47k
JW11
R138 100k
IC105 M5218AP
IC105 SUPER WOOFER AMP
GR10AV/RX100AV
J102 SUPER WOOFER
R136 1k
R135 100k
R134 1k
C130 10 50V
C129 680p
R137 10k
R133 10k
R132 3.3k
C131 220p
Q130 2SC3622A
C992 10000p
Q130 MUTE
R138
D90AV
C237 10 50V
SPE.SIG
R861 330k
R862 100k
C863 10 50V
C862 10 50V
IC861 SPEANA AMP
IC861 NJM4558D
C861 10000p
M901 FAN MOTOR
CN961 3P EH-L
C961 10000p
Q961 2SD1616
Q962 2SA1175
R961 2.2k
R963 4.7k
R962 18k
Q961, 962 FAN MOTOR DRIVER
-12.5
-10.7
-6.9
0.7

IC102

FUNCTION μ-COM LOGIC

	V 0	CD 1	TC 2	ST 3	PS 4
A	L	H	L	H	–
B	L	L	H	H	–
C	L	L	L	L	H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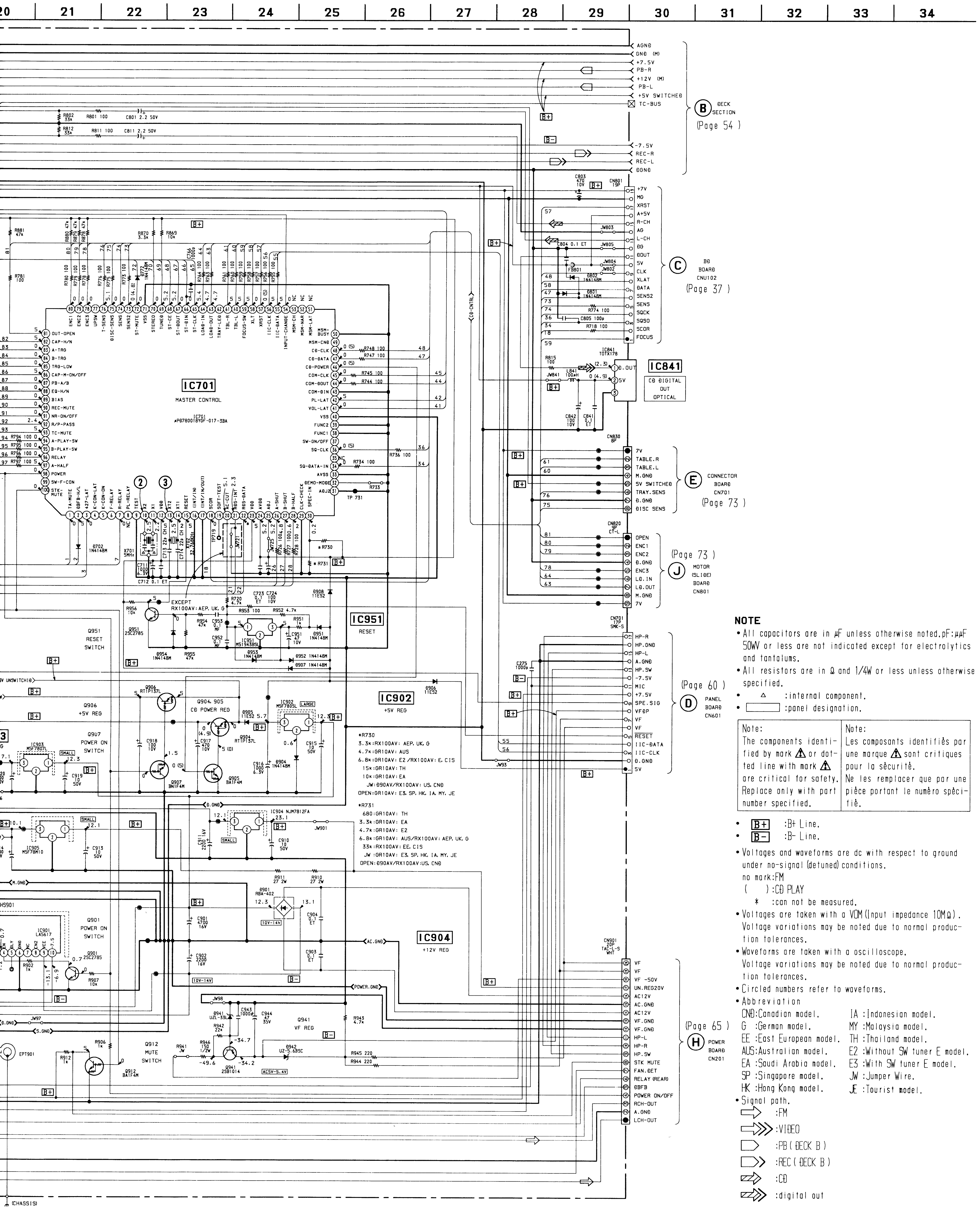
IC102
INPUT SELECTOR
IC601
PRO-LOGIC
IC601 LA2786
IC602
DELAY
IC602 LV1016
IC603
AMP
IC603 M5218
IC604
ELECTRICAL VOLUME
IC604 TC9210P
IC201
EQ/VOLUME
IC201 M62427FP
5BAND GEQ
IC861
SPEANA AMP
IC861 NJM4558B
IC701
MASTER CONTROL
IC903
+7V REG
IC903 MSF7807L
IC905
+10V REG
IC905 MSF78M10
IC901
+7V, -7V REG
IC901 LA5617
HS901
Q951 RESET SWITCH
Q906 +5V REG
Q907 POWER ON SWITCH
Q904, 905 CB POWER REG
Q901 POWER ON SWITCH
Q912 MUTE SWITCH
Q120 MUTE SWITCH
Q201, 202 OBFB SWITCH
Q251, 252 OBFB SWITCH
Q253, 254 MUTE
X601 8MHz
X701 5MHz
EPT901
EXCEPT RX100AV: AEP, UK, G
TCPB-RCH
TCPB-LCH
CB-LCH
CB-RCH
COM-LCH
COM-RCH
TCREC-RCH
TCREC-LCH
TA-MUTE
SPE.SIG
B.5V UNSWITCH
AU/B5VSW
B.5VSW
B.7V
D.GND
ST.10V
PRO-LOG.10V
M.GND
ST.GND
A.GND
A.7.5V
A.-7.5V
UNREG.-12V
S.GND
(CHASSIS)
SMALL
10V-14V
OUT-OPEN
CAP-H/N
A-TRG
B-TRG
TRG-LOW
CAP-M-ON/OFF
PB-A/B
EQ-H/N
BIAS
REC-MUTE
NR-ON/OFF
R/P-PASS
TC-MUTE
A-PLAY-SW
B-PLAY-SW
RELAY
A-HALF
POWER
SW-F-CON
STK-MUTE
B+
B-


20
21
22
23
24
25
26
27
28
29
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31
32
33
34
AGND
GND (M)
+7.5V
PB-R
+12V (M)
PB-L
+5V SWITCHED
TC-BUS
B DECK SECTION
(Page 54)
-7.5V
REC-R
REC-L
DGND
CN801 19P
C BD BOARD CNU102
(Page 37)
IC701
MASTER CONTROL
IC701 ∗P0780018YGF-017-3BA
IC841
CD DIGITAL OUT OPTICAL
IC841 TOTX178
CN830 8P
E CONNECTOR BOARD CN701
(Page 73)
CN820 9P
J MOTOR (SLIDE) BOARD CN801
(Page 73)
CN701 17P
D PANEL BOARD CN601
(Page 60)
IC951
RESET
Q951 RESET SWITCH
IC902
+5V REG
Q906 +5V REG
Q907 POWER ON SWITCH
Q904, 905 CD POWER REG
IC904
+12V REG
IC904 NJM7812FA
D901 RBA-402
Q901 POWER ON SWITCH
IC901 LA5617
IC903 M5F7807L
IC905 M5F78M10
Q941 VF REG
Q912 MUTE SWITCH
EPT901
CN901 20P
H POWER BOARD CN201
(Page 65)
(CHASSIS)
∗R730
3.3k:RX100AV: AEP, UK, G
4.7k:GR10AV: AUS
6.8k:GR10AV: E2 /RX100AV: E, CIS
15k:GR10AV: TH
10k:GR10AV: EA
JW:D90AV/RX100AV: US, CND
OPEN:GR10AV: E3, SP, HK, IA, MY, JE
∗R731
680:GR10AV: TH
3.3k:GR10AV: EA
4.7k:GR10AV: E2
6.8k:GR10AV: AUS/RX100AV: AEP, UK, G
33k:RX100AV: EE, CIS
JW :GR10AV: E3, SP, HK, IA, MY, JE
OPEN:D90AV/RX100AV:US, CND
EXCEPT RX100AV: AEP, UK, G

NOTE

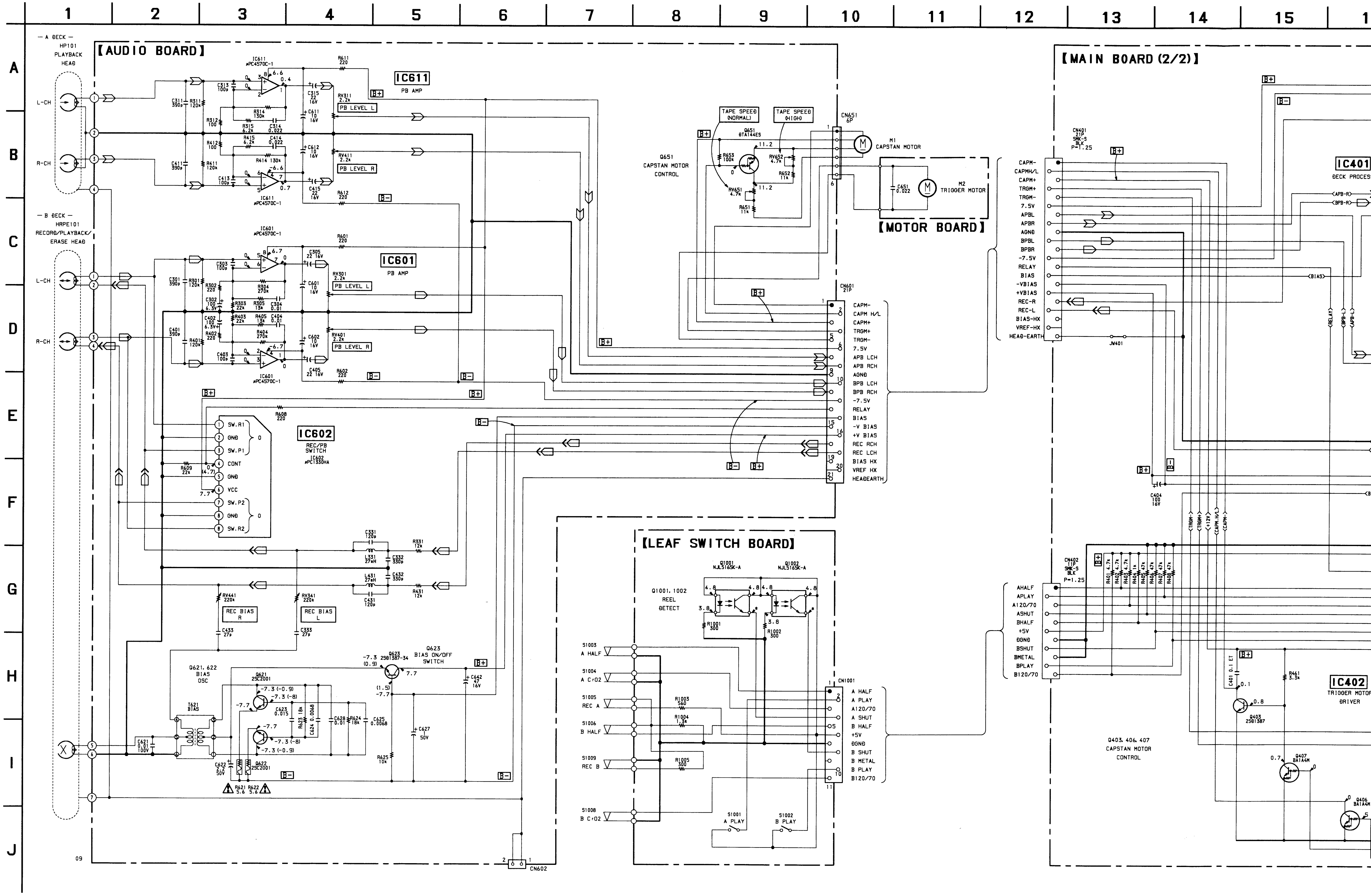
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ☐ :panel designation.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiès par une marque ⚠ sont critiques pour la sècuritè. Ne les remplacer que par une piềce portant le numèro spècifiè.

- B+ :B+ Line.
- B− :B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark:FM
  ( ) :CD PLAY
  ∗ :can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation
  CND:Canadian model.
  G :German model.
  EE :East European model.
  AUS:Australian model.
  EA :Saudi Arabia model.
  SP :Singapore model.
  HK :Hong Kong model.
  IA :Indonesian model.
  MY :Malaysia model.
  TH :Thailand model.
  E2 :Without SW tuner E model.
  E3 :With SW tuner E model.
  JW :Jumper Wire.
  JE :Tourist model.
- Signal path.
  ⇨ :FM
  ⇨» :VIDEO
  ▷ :PB (DECK B)
  ▷» :REC (DECK B)
  ▨⇨ :CD
  ▨⇨» :digital out

7-11. SCHEMATIC DIAGRAM — DECK SECTION —

- See page 44 for Printed Wiring Board. (Main board)
- See page 81 for IC Block Diagrams.



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A
B
C
D
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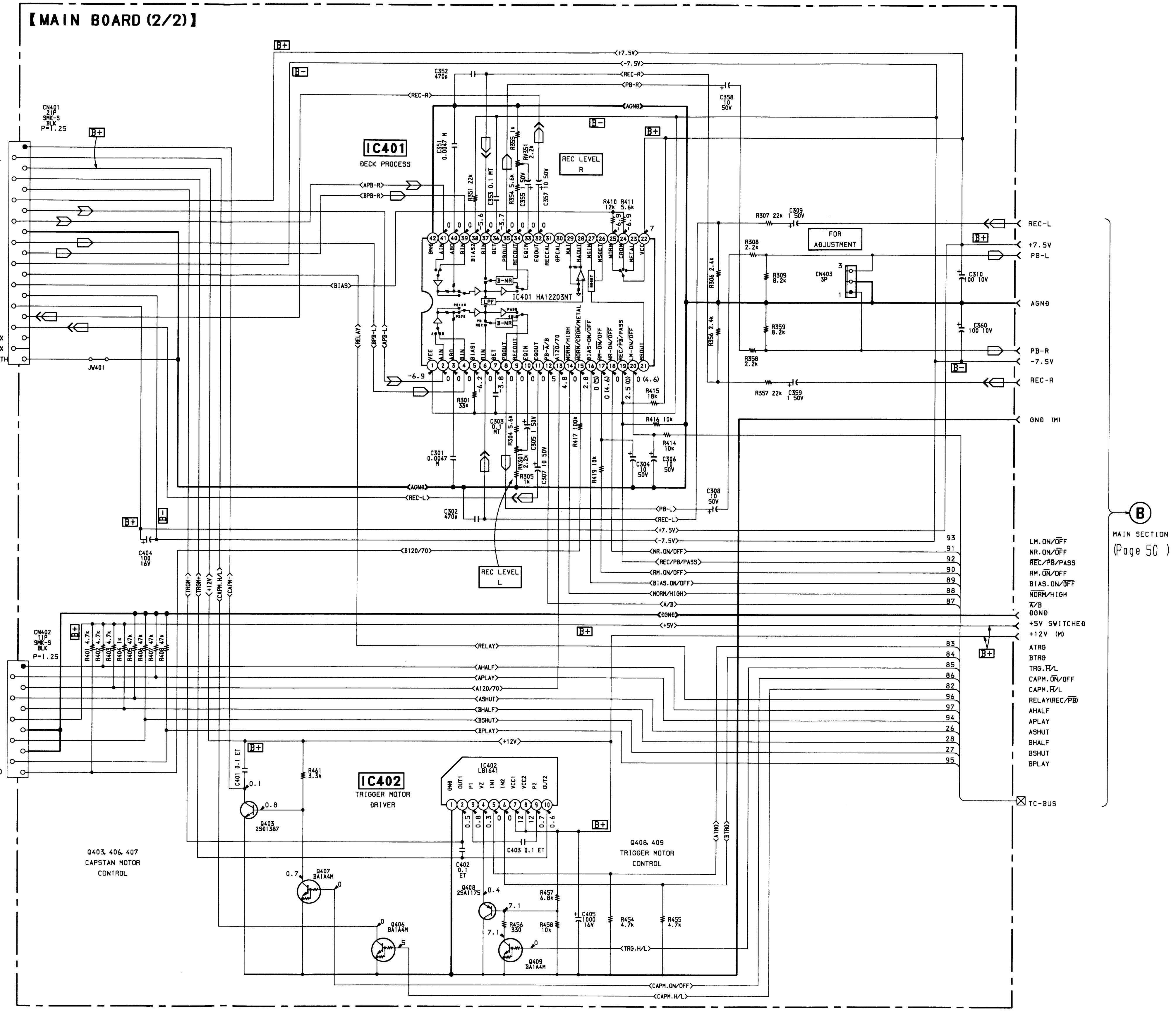
F
G
H
I
J
— A DECK —
HP101
PLAYBACK
HEAD
L-CH
R-CH
— B DECK —
HRPE101
RECORD/PLAYBACK/
ERASE HEAD
[AUDIO BOARD]
IC611
PB AMP
IC611 μPC4570C-1
IC601
PB AMP
IC601 μPC4570C-1
PB LEVEL L
PB LEVEL R
RV311 2.2k
RV411 2.2k
RV301 2.2k
RV401 2.2k
R611 220
R612 220
R601 220
R602 220
IC602
REC/PB SWITCH
IC602 μPC1330HA
SW.R1
GND
SW.P1
CONT
GND
VCC
SW.P2
GND
SW.R2
R608 220
R609 22k
REC BIAS R
REC BIAS L
RV441 220k
RV341 220k
C433 27p
C333 27p
C331 120p
C431 120p
L331 27mH
L431 27mH
C332 330p
C432 330p
R331 12k
R431 12k
Q621, 622
BIAS
OSC
T621
BIAS
Q621 2SC2001
Q622 2SC2001
Q623 2SB1387-34
Q623
BIAS ON/OFF
SWITCH
C642 47 16V
C627 1 50V
R625 10k
C621 0.01 100V
C622 2.2 50V
R621 5.6
R622 5.6
C623 0.015
C624 0.0068
C628 0.01
R624 18k
C625 0.0068
CN602
09
TAPE SPEED (NORMAL)
TAPE SPEED (HIGH)
Q651 DTA144ES
Q651
CAPSTAN MOTOR
CONTROL
R653 100k
RV452 4.7k
R652 11k
RV651 4.7k
R651 11k
CN651 6P
M1
CAPSTAN MOTOR
M2
TRIGGER MOTOR
C651 0.022
[MOTOR BOARD]
CN601 21P
CAPM-
CAPM H/L
CAPM+
TRGM+
TRGM-
7.5V
APB LCH
APB RCH
AGND
BPB LCH
BPB RCH
-7.5V
RELAY
BIAS
-V BIAS
+V BIAS
REC RCH
REC LCH
BIAS HX
VREF HX
HEADEARTH
[LEAF SWITCH BOARD]
Q1001 NJL5165K-A
Q1002 NJL5165K-A
Q1001, 1002
REEL
DETECT
R1001 300
R1002 300
R1003 560
R1004 1.3k
R1005 300
S1003 A HALF
S1004 A CrO2
S1005 REC A
S1006 B HALF
S1009 REC B
S1008 B CrO2
S1001 A PLAY
S1002 B PLAY
CN1001
A HALF
A PLAY
A120/70
A SHUT
B HALF
+5V
DGND
B SHUT
B METAL
B PLAY
B120/70
[MAIN BOARD (2/2)]
CN401 21P SMK-S BLK P=1.25
CAPM-
CAPMH/L
CAPM+
TRGM+
TRGM-
7.5V
APBL
APBR
AGND
BPBL
BPBR
-7.5V
RELAY
BIAS
-VBIAS
+VBIAS
REC-R
REC-L
BIAS-HX
VREF-HX
HEAD-EARTH
JW401
IC401
DECK PROCES
C404 100 16V
CN402 11P SMK-S BLK P=1.25
AHALF
APLAY
A120/70
ASHUT
BHALF
+5V
DGND
BSHUT
BMETAL
BPLAY
B120/70
IC402
TRIGGER MOTOR
DRIVER
R461 3.3k
Q403 2SB1387
Q403, 406, 407
CAPSTAN MOTOR
CONTROL
Q407 BA1A4M
Q406 BA1A4M

13	14	15	16	17	18	19	20	21	22	23	24	25	26


[MAIN BOARD (2/2)]
IC401
DECK PROCESS
IC401 HA12203NT
REC LEVEL R
REC LEVEL L
FOR ADJUSTMENT
CN401 21P SMK-S BLK P=1.25
CN402 11P SMK-S BLK P=1.25
CN403 3P
IC402
TRIGGER MOTOR DRIVER
IC402 LB1641
Q403, 406, 407
CAPSTAN MOTOR CONTROL
Q408, 409
TRIGGER MOTOR CONTROL
Q403 2SB1387
Q406 BA1A4M
Q407 BA1A4M
Q408 2SA1175
Q409 BA1A4M
REC-L
+7.5V
PB-L
AGND
PB-R
-7.5V
REC-R
GND (M)
LM.ON/$\overline{OFF}$
NR.ON/$\overline{OFF}$
$\overline{REC}$/$\overline{PB}$/PASS
RM.$\overline{ON}$/OFF
BIAS.ON/$\overline{OFF}$
$\overline{NORM}$/HIGH
$\overline{A}$/B
DGND
+5V SWITCHED
+12V (M)
ATRG
BTRG
TRG.$\overline{H}$/L
CAPM.$\overline{ON}$/OFF
CAPM.$\overline{H}$/L
RELAY(REC/$\overline{PB}$)
AHALF
APLAY
ASHUT
BHALF
BSHUT
BPLAY
TC-BUS
B
MAIN SECTION
(Page 50)

NOTE

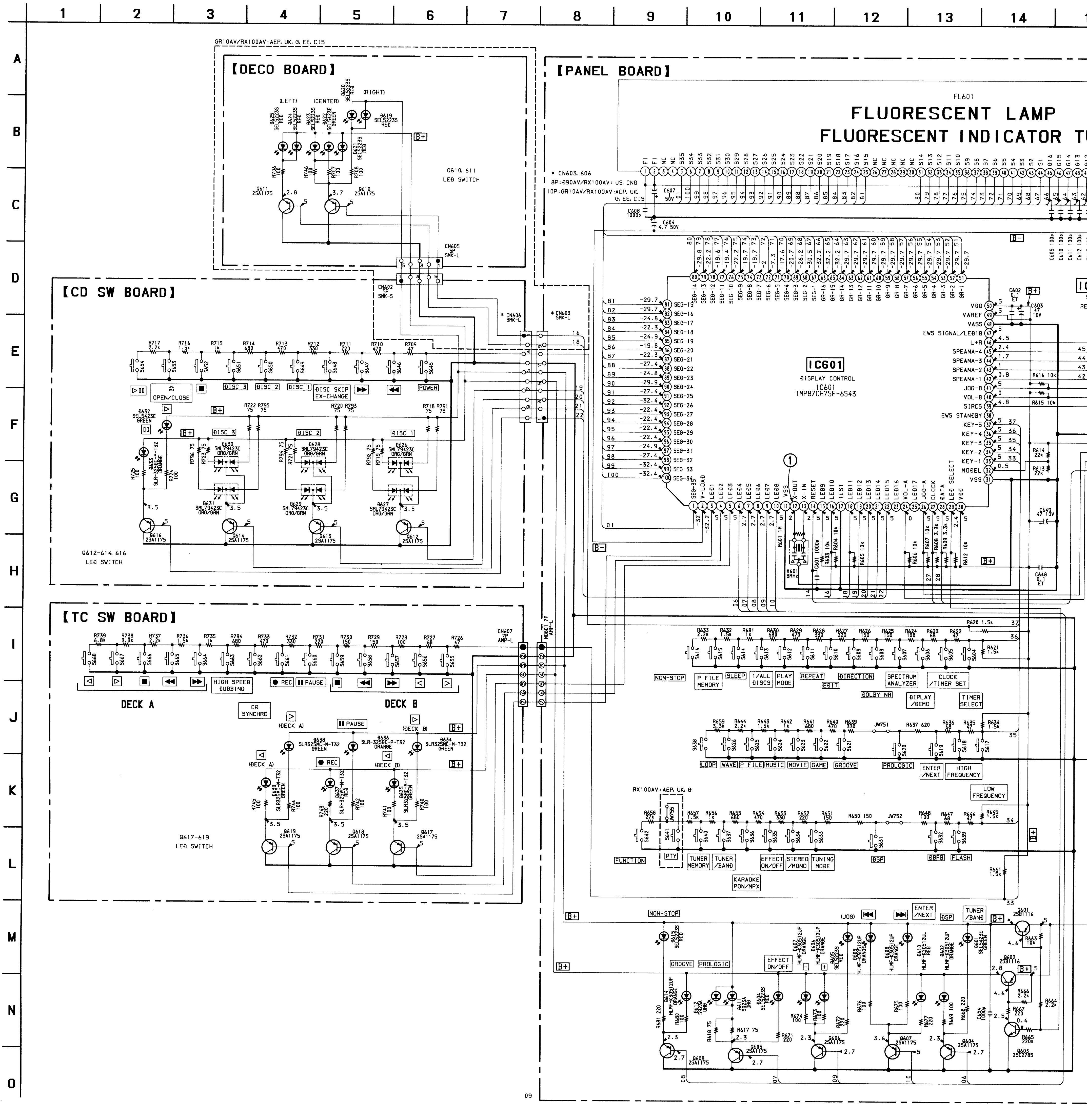
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ─▭─ :fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiès par une marque ⚠ sont critiques pour la sècuritè. Ne les remplacer que par une pièce portant le numèro spècifiè.

- B+ :B+ Line.
- B− :B- Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: PLAY
  ( ): REC
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⊳ :PB (DECK A)
  ▷ :PB (DECK B)
  ▷› :REC (DECK B)

7-13. SCHEMATIC DIAGRAM — PANEL SECTION —

• See page 87 for IC Pin Functions.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A
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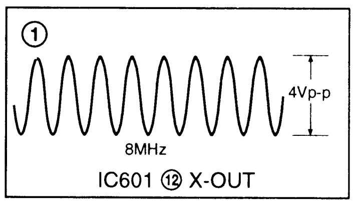
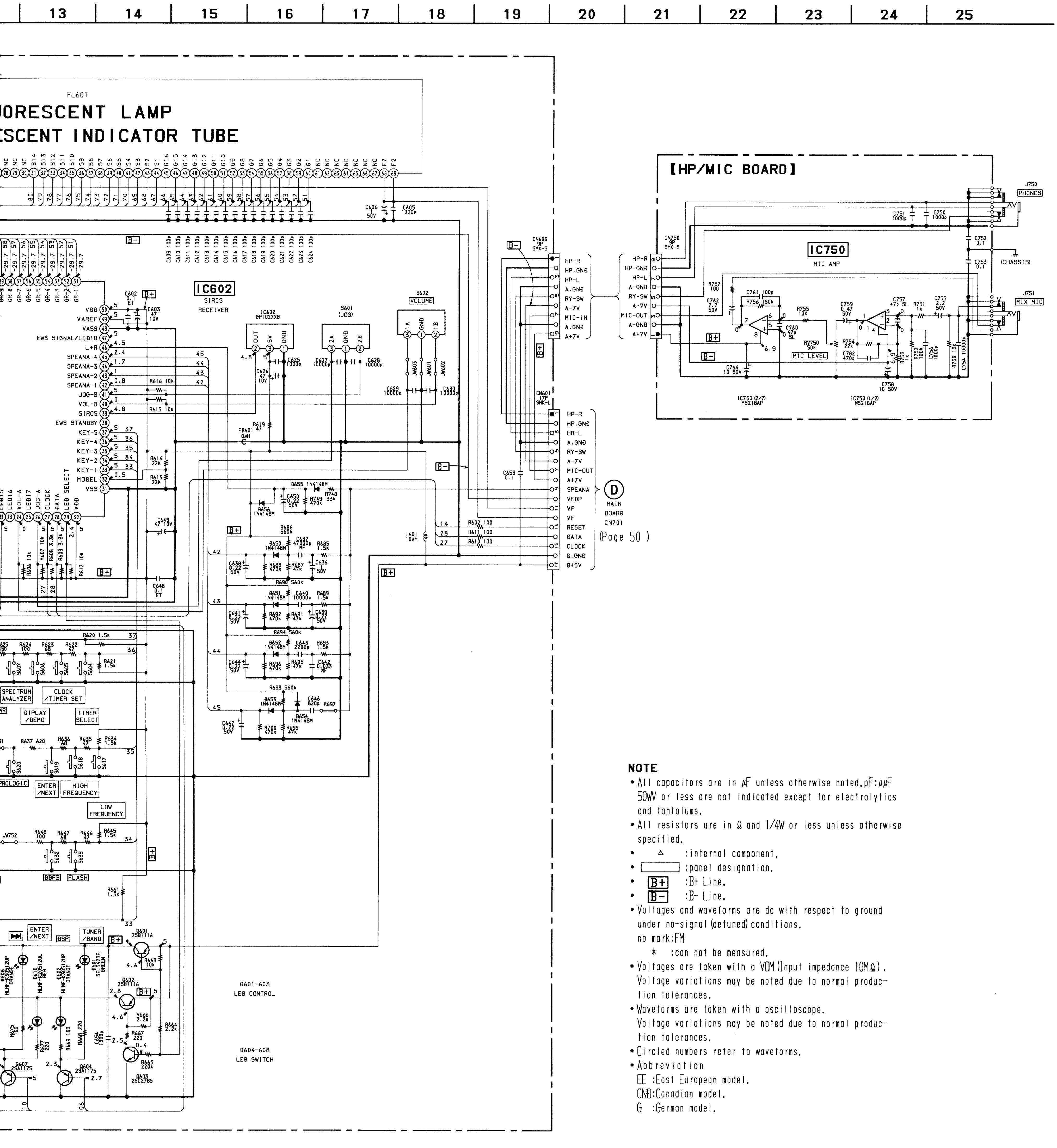
I
J
K
L
M
N
O
GR10AV/RX100AV:AEP, UK, G, EE, CIS
【DECO BOARD】
(LEFT)
(CENTER)
(RIGHT)
Q610, 611
LED SWITCH
CN605
CN602
【PANEL BOARD】
FL601
FLUORESCENT LAMP
FLUORESCENT INDICATOR T
* CN603, 606
8P:D90AV/RX100AV: US, CND
10P:GR10AV/RX100AV:AEP, UK, G, EE, CIS
【CD SW BOARD】
OPEN/CLOSE
DISC 3
DISC 2
DISC 1
DISC SKIP
EX-CHANGE
POWER
Q612-614, 616
LED SWITCH
IC601
DISPLAY CONTROL
IC601
TMP87CH75F-6543
VDD
VAREF
VASS
EWS SIGNAL/LED18
L+R
SPEANA-4
SPEANA-3
SPEANA-2
SPEANA-1
JOG-B
VOL-B
SIRCS
EWS STANDBY
KEY-5
KEY-4
KEY-3
KEY-2
KEY-1
MODEL
VSS
【TC SW BOARD】
HIGH SPEED
DUBBING
REC
PAUSE
DECK A
DECK B
CD
SYNCHRO
Q617-619
LED SWITCH
NON-STOP
P FILE
MEMORY
SLEEP
1/ALL
DISCS
PLAY
MODE
REPEAT
DIRECTION
EDIT
SPECTRUM
ANALYZER
CLOCK
/TIMER SET
DOLBY NR
DIPLAY
/DEMO
TIMER
SELECT
LOOP
WAVE
P FILE
MUSIC
MOVIE
GAME
GROOVE
PROLOGIC
ENTER
/NEXT
HIGH
FREQUENCY
LOW
FREQUENCY
RX100AV:AEP, UK, G
FUNCTION
PTY
TUNER
MEMORY
TUNER
/BAND
EFFECT
ON/OFF
STEREO
/MONO
TUNING
MODE
KARAOKE
PON/MPX
DSP
DBFB
FLASH
(JOG)
GROOVE
PROLOGIC
EFFECT
ON/OFF

• **Waveform**

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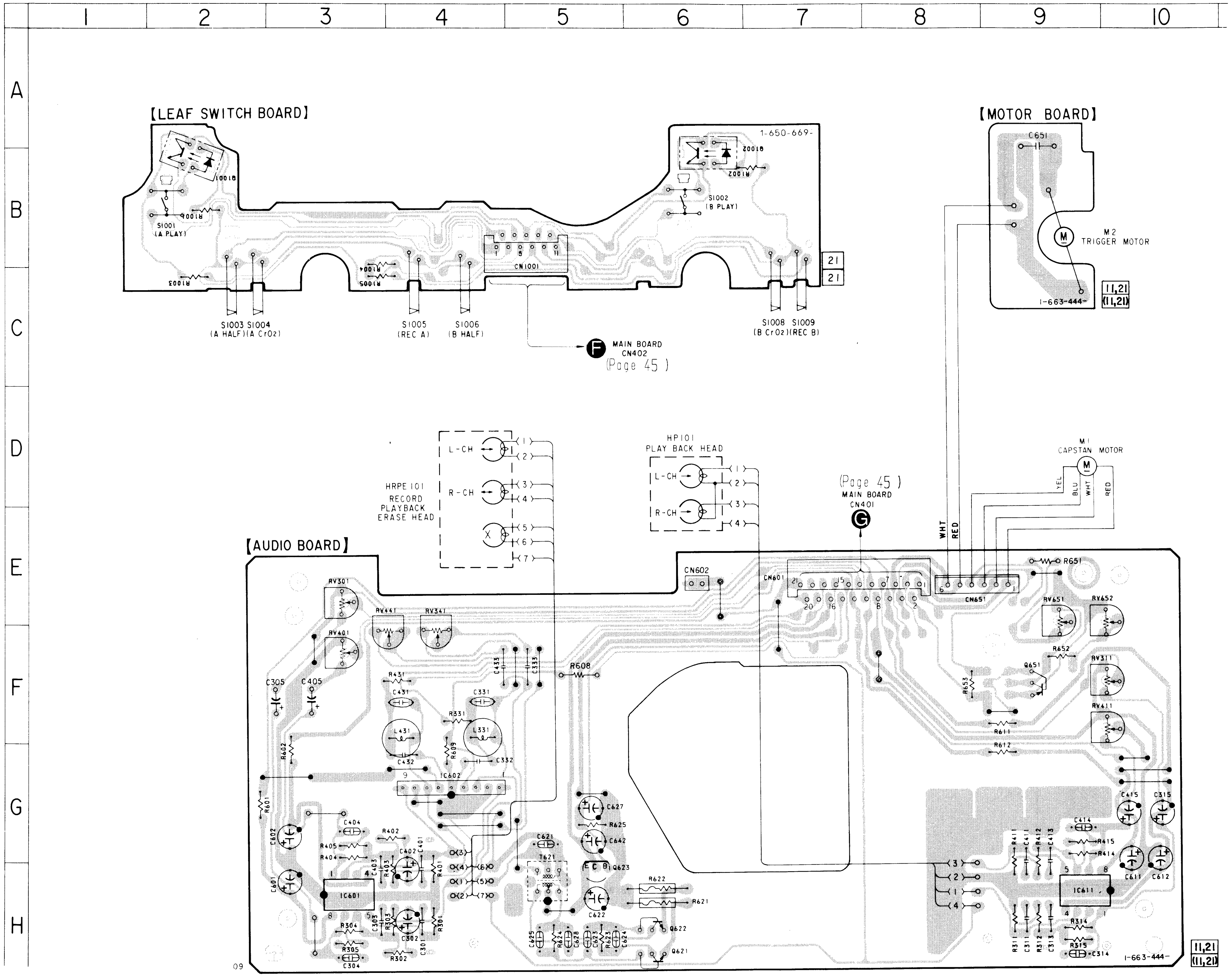
FL601
ORESCENT LAMP
ESCENT INDICATOR TUBE
IC602
SIRCS RECEIVER
IC602
GP1U27XB
S601
(JOG)
S602
VOLUME
VDD
VAREF
VASS
EWS SIGNAL/LED18
L+R
SPEANA-4
SPEANA-3
SPEANA-2
SPEANA-1
JOG-B
VOL-B
SIRCS
EWS STANDBY
KEY-5
KEY-4
KEY-3
KEY-2
KEY-1
MODEL
VSS
LED SELECT
DATA
CLOCK
CN609
9P
SMK-S
HP-R
HP.GND
HP-L
A.GND
RY-SW
A-7V
MIC-IN
A.GND
A+7V
CN601
17P
SMK-L
HP-R
HP.GND
HR-L
A.GND
RY-SW
A-7V
MIC-OUT
A+7V
SPEANA
VFDP
VF
VF
RESET
DATA
CLOCK
D.GND
D+5V
D
MAIN
BOARD
CN701
(Page 50)
【HP/MIC BOARD】
CN750
9P
SMK-S
IC750
MIC AMP
RV750
50k
MIC LEVEL
IC750 (2/2)
M5218AP
IC750 (1/2)
M5218AP
J750
PHONES
J751
MIX MIC
(CHASSIS)
SPECTRUM ANALYZER
CLOCK /TIMER SET
DISPLAY /DEMO
TIMER SELECT
PROLOGIC
ENTER /NEXT
HIGH FREQUENCY
LOW FREQUENCY
DBFB
FLASH
ENTER /NEXT
DSP
TUNER /BAND
Q601
2SB1116
Q602
2SB1116
Q603
2SC2785
Q604
2SA1175
Q607
2SA1175
Q601-603
LED CONTROL
Q604-608
LED SWITCH

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- B- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation
  EE : East European model.
  CND: Canadian model.
  G : German model.

7-12. PRINTED WIRING BOARD — DECK SECTION —
• See page 19 for Circuit Boards Location.



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A
B
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D
E
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G
H
[LEAF SWITCH BOARD]
1-650-669-
S1001 (A PLAY)
S1002 (B PLAY)
CN1001
S1003 S1004 (A HALF)(A CrO2)
S1005 S1006 (REC A) (B HALF)
S1008 S1009 (B CrO2)(REC B)
F MAIN BOARD CN402 (Page 45)
21
[MOTOR BOARD]
C651
M2 TRIGGER MOTOR
1-663-444-
11,21
HRPE101 RECORD PLAYBACK ERASE HEAD
L-CH
R-CH
HP101 PLAY BACK HEAD
(Page 45) MAIN BOARD CN401
G
M1 CAPSTAN MOTOR
YEL
BLU
WHT
RED
[AUDIO BOARD]
CN602
CN601
CN651
R651
RV301
RV441
RV341
RV401
RV651
RV652
RV311
RV411
R652
Q651
R653
R611
R612
C305
C405
R431
C431
C331
R331
L431
L331
C432
C332
C435
C333
R608
R609
IC602
R402
R601
C602
C601
C404
R405
R404
C402
C401
C403
R403
R401
IC601
R304
R305
C304
R302
C303
R303
C302
C301
R301
C621
IC621
C627
R625
C642
Q623
C622
R622
R621
Q622
Q621
C625
R624
C628
C623
R623
C624
C414
R415
R414
C415
C315
C411
C612
C611
IC611
R411
R412
C412
C413
R314
R315
C314
R311
C311
R312
C313
1-663-444-
09

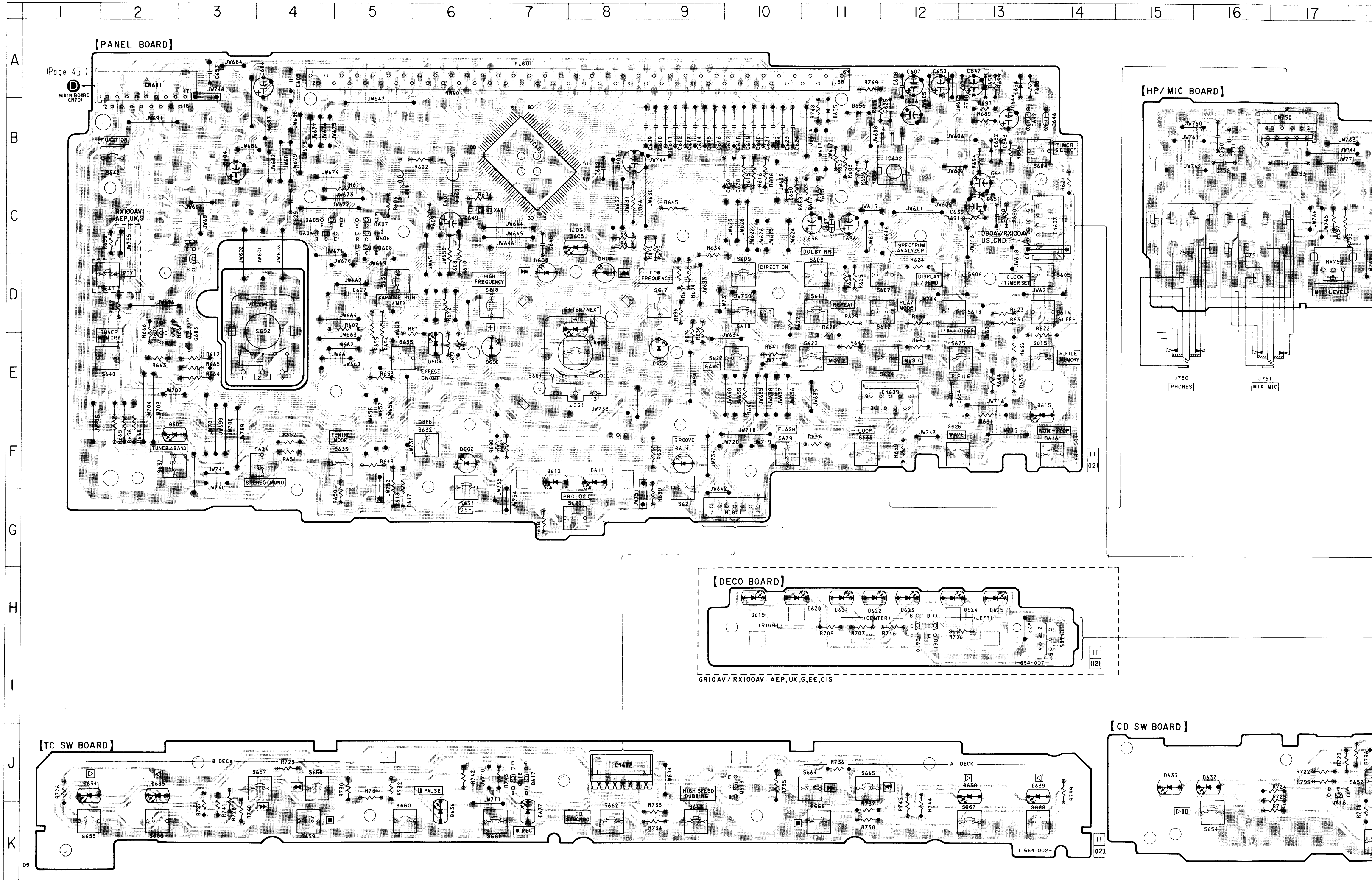
• Semiconductor Location

Ref. No.	Location
IC601	H-3
IC602	G-4
IC611	H-9
Q621	I-6
Q622	H-6
Q623	H-5
Q651	F-9
Q1001	B-2
Q1002	B-6

Note:
- o—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.

7-14. PRINTED WIRING BOARD — PANEL SECTION —

- See page 19 for Circuit Boards Location.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A
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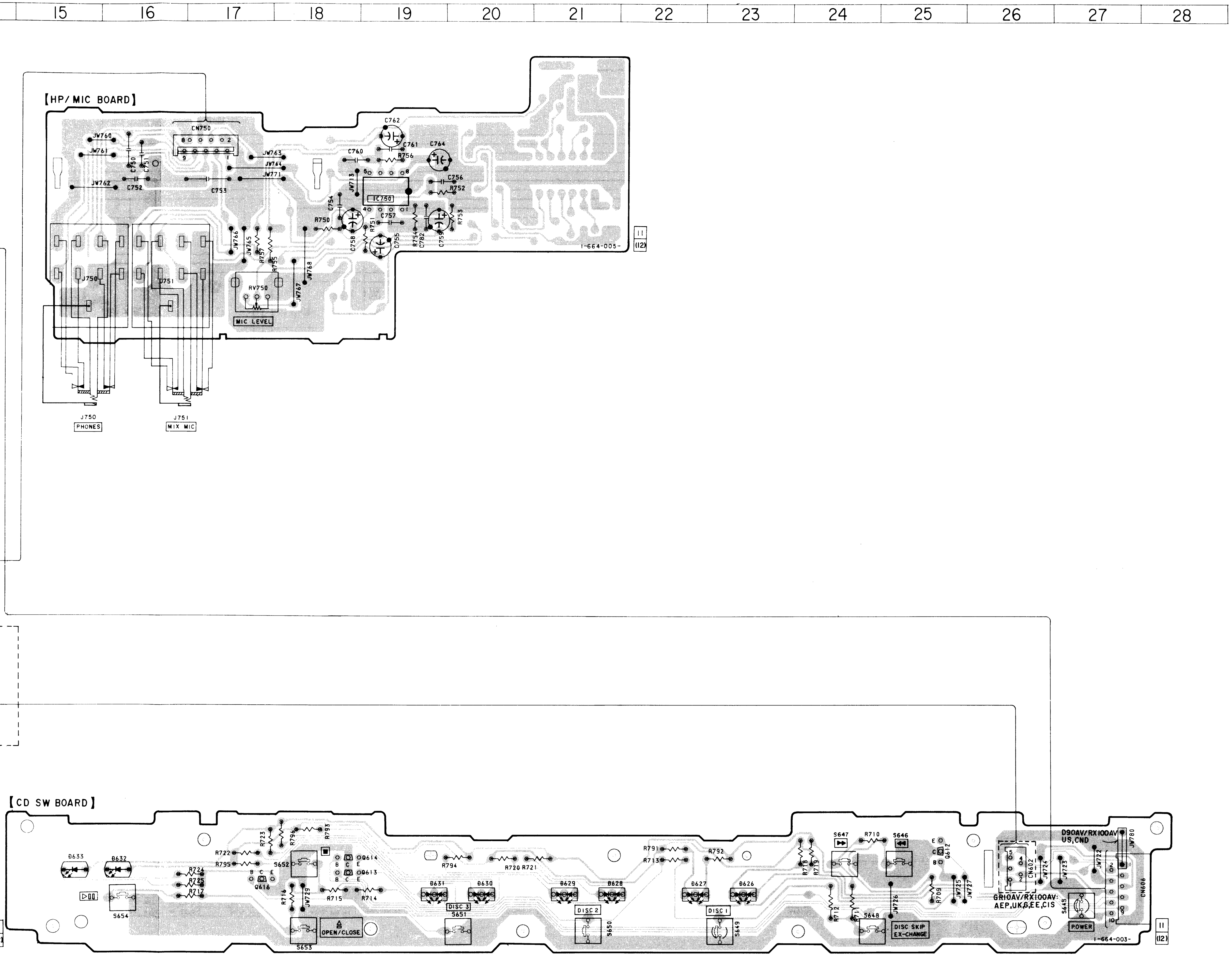
C
D
E
F
G
H
I
J
K
【PANEL BOARD】
(Page 45)
MAIN BOARD CN701
CN601
FL601
IC601
IC602
FUNCTION
S642
RX100AV: AEP,UK,G
PTY
S641
TUNER MEMORY
S640
VOLUME
S602
KARAOKE PON /MPX
HIGH FREQUENCY
S618
EFFECT ON/OFF
(JOG)
D605
ENTER/NEXT
D610
S619
S601
(JOG)
LOW FREQUENCY
S617
DOLBY NR
S608
DIRECTION
S609
EDIT
S610
REPEAT
S611
SPECTRUM ANALYZER
DISPLAY /DEMO
S606
S607
PLAY MODE
S612
I/ALL DISCS
S613
CLOCK /TIMER SET
S605
SLEEP
S614
TIMER SELECT
S604
D90AV/RX100AV: US,CND
CN603
GAME
S622
MOVIE
S623
MUSIC
S624
P FILE
S625
P FILE MEMORY
S615
CN609
FLASH
S639
LOOP
S638
WAVE
S626
NON-STOP
S616
TUNER/BAND
STEREO/MONO
S634
S637
TUNING MODE
S633
DBFB
S632
DSP
S631
PROLOGIC
S620
GROOVE
D614
S621
ND801
1-664-001-
11 (12)
【HP/MIC BOARD】
CN750
MIC LEVEL
RV750
J750
PHONES
J751
MIX MIC
【DECO BOARD】
(RIGHT)
(CENTER)
(LEFT)
D619
D620
D621
D622
D623
D624
D625
CN605
1-664-007-
11 (12)
GR10AV/RX100AV: AEP,UK,G,EE,CIS
【TC SW BOARD】
B DECK
A DECK
CN607
S655
S656
S657
S658
S659
S660
PAUSE
S661
REC
CD SYNCHRO
S662
HIGH SPEED DUBBING
S663
S664
S665
S666
S667
S668
1-664-002-
11 (12)
【CD SW BOARD】
S654
09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28
【HP/MIC BOARD】
CN750
JW760
JW761
JW762
JW763
JW764
JW771
C750
C751
C752
C753
C760
C761
C762
C764
C756
R756
R752
IC750
C754
C757
R750
JW713
C758
R751
C755
R754
C782
C759
R753
JW766
JW765
R757
R755
JW767
JW768
RV750
MIC LEVEL
J750
J751
PHONES
MIX MIC
1-664-005-
11
(12)
【CD SW BOARD】
D633
D632
S654
R722
R795
R724
R725
R717
R723
R796
R793
S652
Q614
Q613
Q616
R716
JW729
R715
R714
S653
OPEN/CLOSE
R794
R720
R721
D631
D630
DISC 3
S651
D629
D628
DISC 2
S650
R791
R713
R792
D627
D626
DISC 1
S649
S647
R710
S646
R718
R719
R712
R711
S648
JW726
DISC SKIP
EX-CHANGE
Q612
R709
JW725
JW727
D90AV/RX100AV
US,CND
CN602
JW724
JW723
JW722
JW780
GR10AV/RX100AV:
AEP,UK,G,EE,CIS
S645
POWER
CN606
1-664-003-
11
(12)

- **Semiconductor Location**

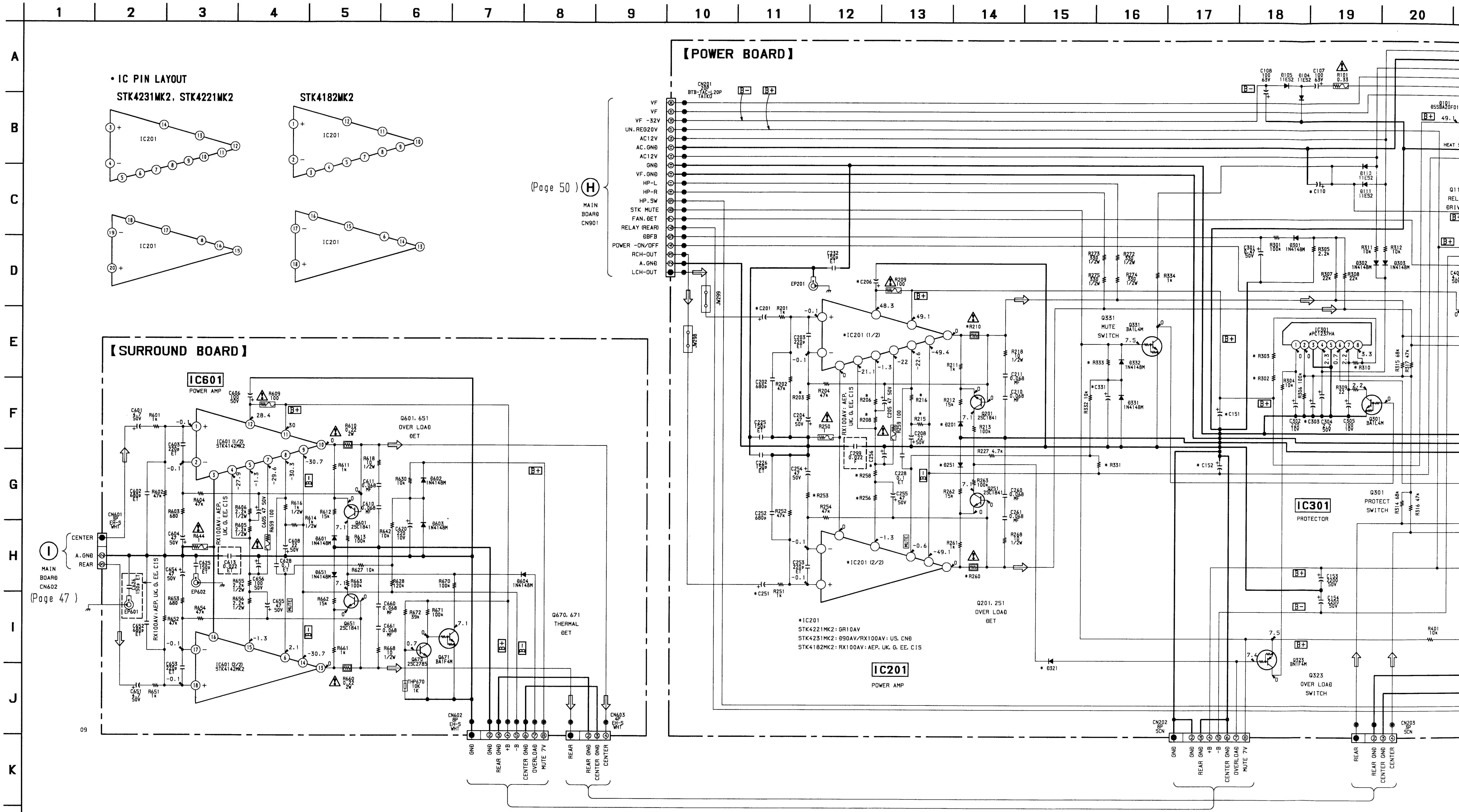
Ref. No.	Location
D601	F-2
D602	F-6
D604	E-6
D605	C-8
D606	E-7
D607	E-9
D608	D-7
D609	D-8
D610	D-8
D611	F-8
D612	F-7
D614	F-9
D615	E-14
D619	H-10
D620	H-11
D621	H-11
D622	H-12
D623	H-12
D624	H-13
D625	H-13
D626	J-23
D627	J-22
D628	J-21
D629	J-21
D630	J-20
D631	J-19
D632	J-16
D633	J-15
D634	J-1
D635	J-2
D636	K-6
D637	K-7
D638	J-13
D639	J-14
D650	C-10
D651	C-13
D652	B-13
D653	A-13
D654	A-13
D655	B-11
D656	B-11
IC601	B-7
IC602	B-12
IC750	C-19
Q601	C-3
Q602	D-2
Q603	D-3
Q604	C-4
Q605	C-4
Q606	C-5
Q607	C-5
Q608	C-5
Q610	H-12
Q611	H-12
Q612	J-25
Q613	J-19
Q614	J-19
Q616	J-17
Q617	J-7
Q618	J-7
Q619	J-10

Note:

- o—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.
- Abbreviation
  CND : Canadian model.
  G : German model.
  EE : East European model.

7-15. SCHEMATIC DIAGRAM — POWER SECTION —

• See page 81 for IC Block Diagrams.


• IC PIN LAYOUT
STK4231MK2, STK4221MK2
STK4182MK2
IC201
【POWER BOARD】
【SURROUND BOARD】
IC601
POWER AMP
IC601 (1/2) STK4142MK2
IC601 (2/2) STK4142MK2
Q601, 651 OVER LOAD DET
Q670, 671 THERMAL DET
(Page 50) H MAIN BOARD CN901
I MAIN BOARD CN602 (Page 47)
CENTER
A.GND
REAR
VF
VF -32V
UN.REG20V
AC12V
AC.GND
GND
VF.GND
HP-L
HP-R
HP.SW
STK MUTE
FAN.DET
RELAY (REAR)
DBFB
POWER -ON/OFF
RCH-OUT
A.GND
LCH-OUT
*IC201 (1/2)
*IC201 (2/2)
*IC201
STK4221MK2: GR10AV
STK4231MK2: D90AV/RX100AV: US, CND
STK4182MK2: RX100AV: AEP, UK, G, EE, CIS
IC201
POWER AMP
Q201, 251 OVER LOAD DET
Q331 MUTE SWITCH
IC301 µPC1237HA
IC301 PROTECTOR
Q301 PROTECT SWITCH
Q323 OVER LOAD SWITCH
CN602 8P EH-S WHT
CN603 4P EH-S WHT
CN202 8P 5CN
CN203 3P 5CN
GND
REAR GND
+B
-B
CENTER GND
OVERLOAD
MUTE 7V
REAR
CENTER
1
2
3
4
5
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13
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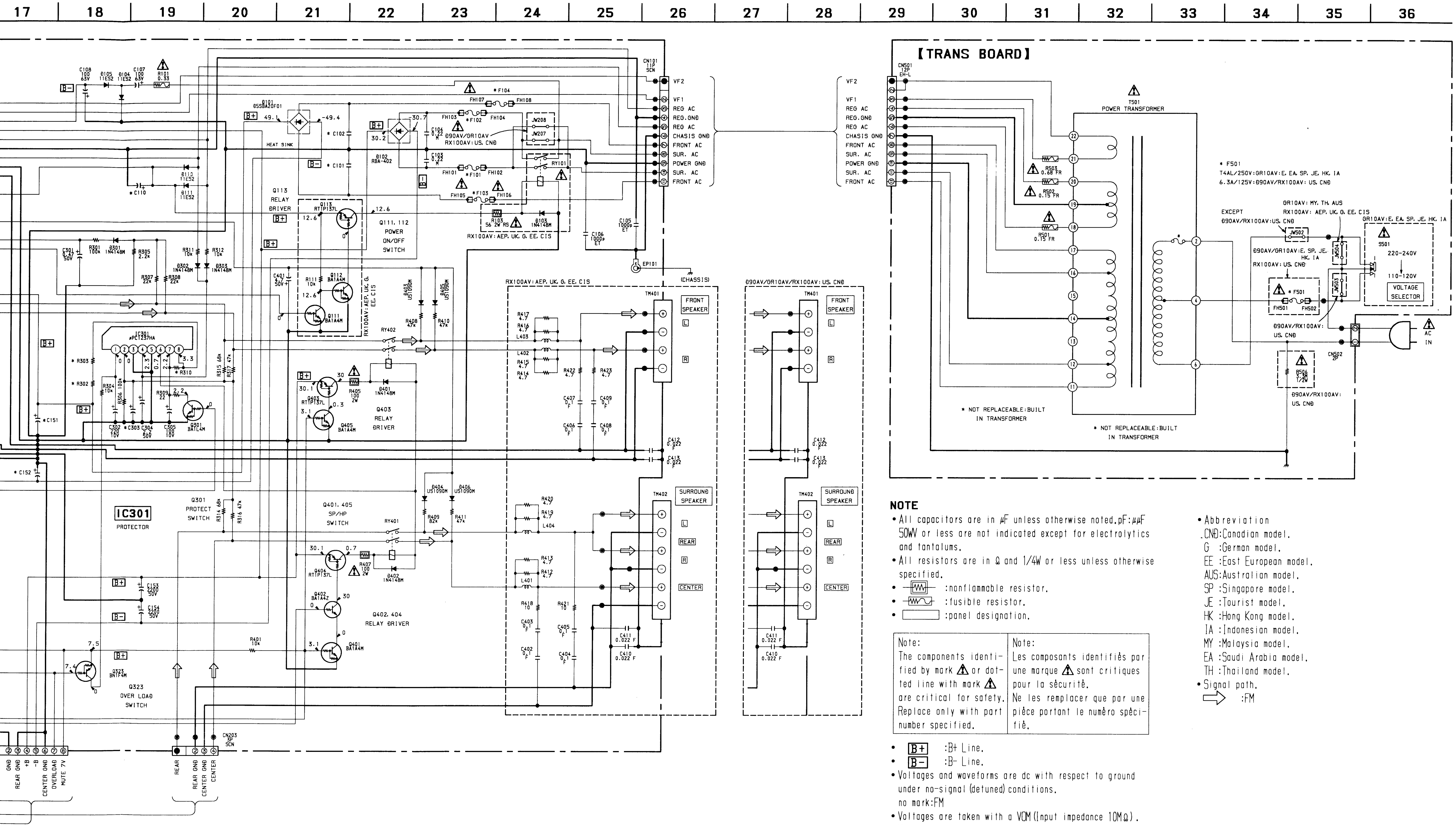
K
L

*** DIFFERENCE TABLE**

MODEL \ Ref. No.	C101, 102	C110	C151, 152	C201, 251	C206, 256	C303	C331	D201, 251, 321	F101, 102	F103, 104	R203, 253	R206, 208, 256, 258	R210, 260	R215, 216	R302, 303	R310	R331	R333
RX100AV: AEP, UK, G, EE, CIS	0.22/50V	1000/25V	4700/50V	4.7/50V	100/50V	220/10V	470/10V	1N4148M	T3.15AL/250V	T6.3AL/250V	680	3.3k 1/2W	0.22 2W	1k 1/2W	4.7k	33k	150k	10k
D90AV/RX100AV: US, CND	0.22/100V	100/25V	4700/71V	10/100V	22/100V	100/10V	330/10V	US1090M	3.15A/125V	6.3A/125V	470	4.7k 1/2W	0.22 5W	1.8k 1/2W	9.1k	47k	270k	15k
GR10AV	0.22/100V	100/25V	4700/71V	10/100V	22/100V	100/10V	330/10V	US1090M	T2.5AL/250V	T6.3AL/250V	470	4.7k 1/2W	0.22 5W	2.2k 1/2W	9.1k	47k	300k	15k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36
【TRANS BOARD】
CN101 11P SCN
CN501 12P EH-L
VF2
VF1
REG AC
REG.GND
REG AC
CHASIS GND
FRONT AC
SUR. AC
POWER GND
SUR. AC
FRONT AC
T501 POWER TRANSFORMER
D101 D5SBA20F01
D102 RBA-402
HEAT SINK
Q113 RELAY DRIVER
Q111, 112 POWER ON/OFF SWITCH
RY101
RX100AV:AEP, UK, G, EE, CIS
D90AV/GR10AV/RX100AV:US, CND
D90AV/GR10AV
RX100AV:US, CND
EP101 (CHASSIS)
TM401
FRONT SPEAKER
TM402
SURROUND SPEAKER
L
R
REAR
CENTER
IC301 μPC1237HA
IC301 PROTECTOR
Q301 PROTECT SWITCH
Q401, 405 SP/HP SWITCH
Q403 RELAY DRIVER
Q402, 404 RELAY DRIVER
Q323 OVER LOAD SWITCH
RY401
RY402
CN203 5P SCN
REAR
REAR GND
CENTER GND
CENTER
GND
REAR GND
+B
-B
CENTER GND
OVERLOAD
MUTE 7V
* F501
T4AL/250V:GR10AV:E, EA, SP, JE, HK, IA
6.3A/125V:D90AV/RX100AV:US, CND
GR10AV: MY, TH, AUS
EXCEPT D90AV/RX100AV:US, CND
RX100AV: AEP, UK, G, EE, CIS
GR10AV:E, EA, SP, JE, HK, IA
S501
220-240V
110-120V
VOLTAGE SELECTOR
AC IN
CN502 2P
FH501
FH502
R503 0.68 FR
R502 0.15 FR
R501 0.15 FR
* NOT REPLACEABLE:BUILT IN TRANSFORMER

253	R206, 208, 256, 258	R210, 260	R215, 216	R302, 303	R310	R331	R333
	3.3k 1/2W	0.22 2W	1k 1/2W	4.7k	33k	150k	10k
	4.7k 1/2W	0.22 5W	1.8k 1/2W	9.1k	47k	270k	15k
	4.7k 1/2W	0.22 5W	2.2k 1/2W	9.1k	47k	300k	15k

NOTE

- All capacitors are in μF unless otherwise noted.pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- :nonflammable resistor.
- :fusible resistor.
- ▭ :panel designation.

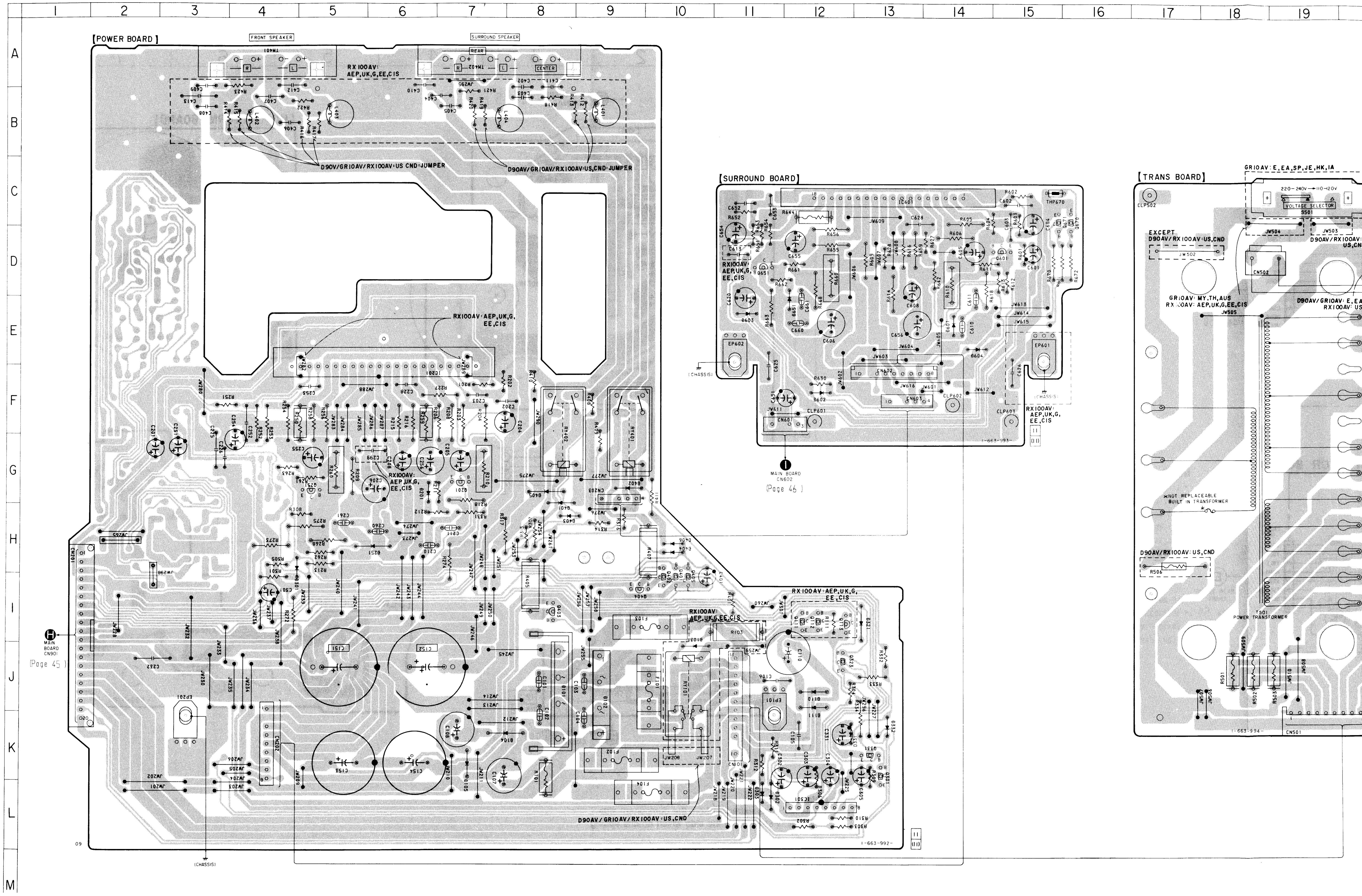
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiès par une marque ⚠ sont critiques pour la sècuritè. Ne les remplacer que par une pièce portant le numèro spècifiè.

- B+ :B+ Line.
- B- :B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark:FM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

- Abbreviation
  CND:Canadian model.
  G :German model.
  EE :East European model.
  AUS:Australian model.
  SP :Singapore model.
  JE :Tourist model.
  HK :Hong Kong model.
  IA :Indonesian model.
  MY :Malaysia model.
  EA :Saudi Arabia model.
  TH :Thailand model.
- Signal path.
  ⇨ :FM

7-16. PRINTED WIRING BOARD — POWER SECTION —

- **See page 19 for Circuit Boards Location.**



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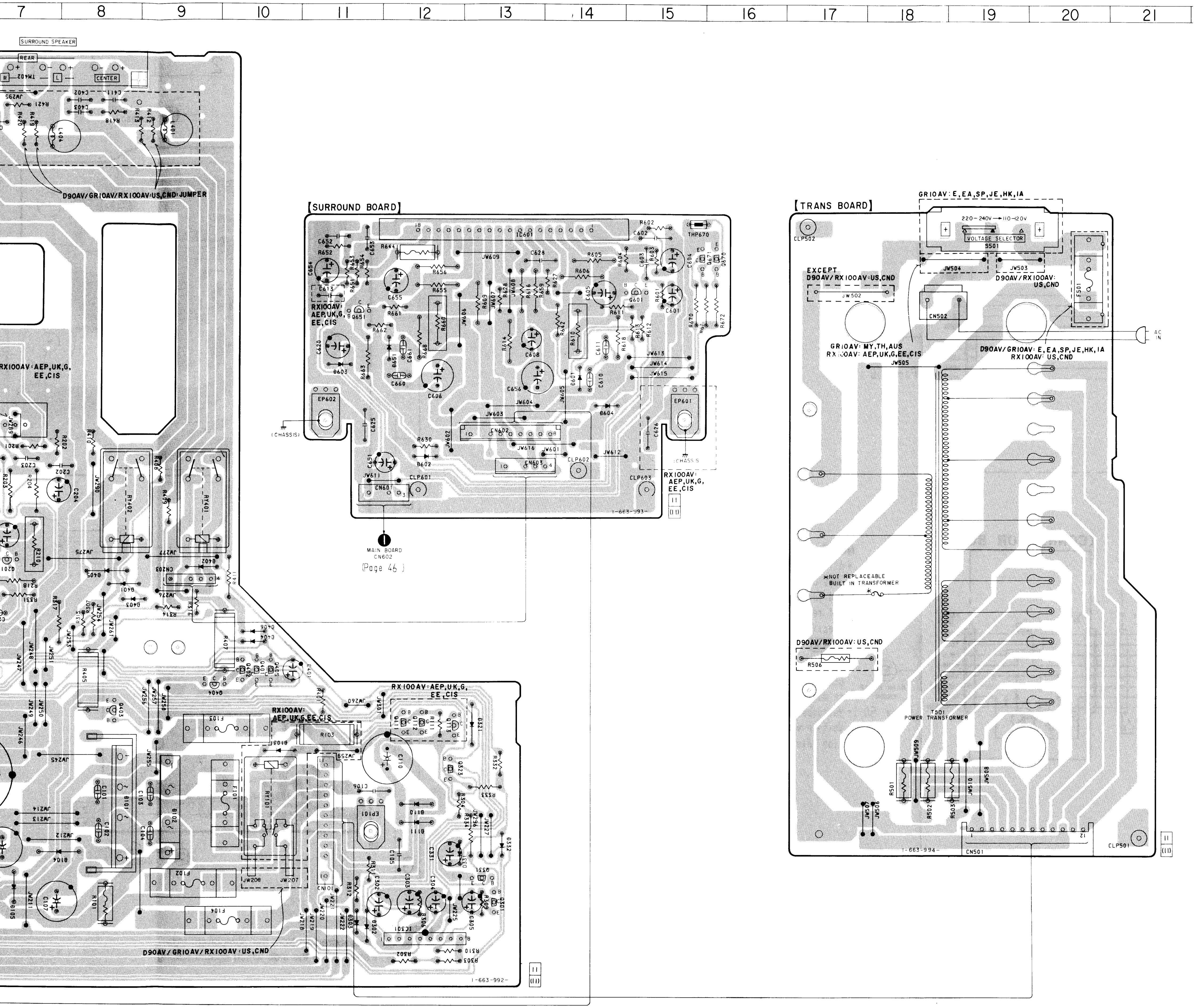
I
J
K
L
M
[POWER BOARD]
FRONT SPEAKER
SURROUND SPEAKER
REAR
CENTER
RX100AV: AEP,UK,G,EE,CIS
D90V/GR10AV/RX100AV:US CND:JUMPER
D90AV/GR10AV/RX100AV:US,CND:JUMPER
RX100AV:AEP,UK,G, EE,CIS
RX100AV: AEP,UK,G, EE,CIS
RX100AV: AEP,UK,G, EE,CIS
D90AV/GR10AV/RX100AV:US,CND
MAIN BOARD CN901
(Page 45)
(CHASSIS)
1-663-992-
[SURROUND BOARD]
RX100AV: AEP,UK,G, EE,CIS
RX100AV: AEP,UK,G, EE,CIS
(CHASSIS)
MAIN BOARD CN602
(Page 46)
1-663-993-
[TRANS BOARD]
GR10AV:E,EA,SP,JE,HK,IA
220-240V ↔ 110-120V
VOLTAGE SELECTOR
S501
EXCEPT D90AV/RX100AV:US,CND
D90AV/RX100AV: US,CN
GR10AV: MY,TH,AUS
RX100AV: AEP,UK,G,EE,CIS
D90AV/GR10AV: E,EA
RX100AV: US
✻NOT REPLACEABLE BUILT IN TRANSFORMER
D90AV/RX100AV: US,CND
T501 POWER TRANSFORMER
1-663-994-
CN501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SURROUND SPEAKER
REAR
CENTER
D90AV/GR10AV/RX100AV:US,CND:JUMPER
RX100AV:AEP,UK,G,EE,CIS
[SURROUND BOARD]
RX100AV:AEP,UK,G,EE,CIS
(CHASSIS)
MAIN BOARD CN602 (Page 46)
1-663-993-
RX100AV:AEP,UK,G,EE,CIS
D90AV/GR10AV/RX100AV:US,CND
1-663-992-
[TRANS BOARD]
GR10AV:E,EA,SP,JE,HK,IA
220-240V ↔ 110-120V
VOLTAGE SELECTOR
S501
EXCEPT D90AV/RX100AV:US,CND
D90AV/RX100AV:US,CND
GR10AV:MY,TH,AUS
RX100AV:AEP,UK,G,EE,CIS
D90AV/GR10AV:E,EA,SP,JE,HK,IA
RX100AV:US,CND
AC IN
※NOT REPLACEABLE BUILT IN TRANSFORMER
D90AV/RX100AV:US,CND
T501 POWER TRANSFORMER
CN501
CLP501
1-663-994-

- **Semiconductor Location**

Ref. No.	Location
D101	J-8
D102	J-9
D103	I-10
D104	K-8
D105	K-7
D110	J-12
D111	J-12
D201	G-6
D251	H-6
D301	I-4
D302	L-11
D303	L-11
D321	I-13
D331	K-13
D332	K-13
D401	H-8
D402	G-9
D403	H-8
D404	H-10
D405	G-8
D406	H-10
D601	E-14
D602	F-12
D603	E-11
D604	E-14
D651	E-12
IC201	F-6
IC301	L-12
IC601	C-13
Q111	I-12
Q112	I-12
Q113	I-12
Q201	G-7
Q251	G-5
Q301	K-13
Q323	J-13
Q331	K-13
Q401	I-10
Q402	I-10
Q403	I-8
Q404	I-9
Q405	I-10
Q601	D-15
Q651	D-11
Q670	C-16
Q671	C-16

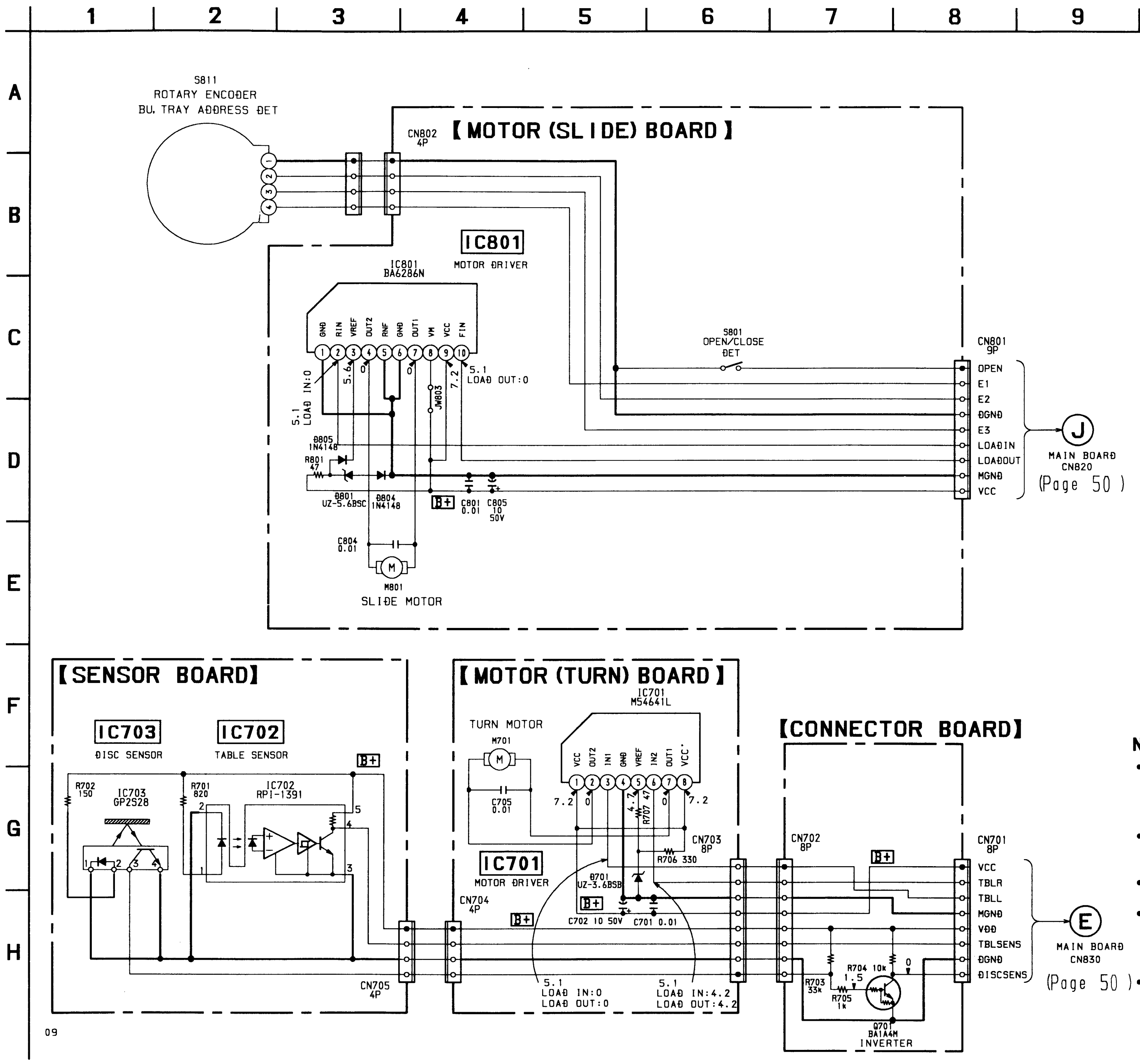
Note:

- ○—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.
- Abbreviation

CND	Canadian model.
G	German model.
EE	East European model.
AUS	Australian model.
EA	Saudi Arabia model.
SP	Singapore model.
JE	Tourist model.
HK	Hong Kong model.
IA	Indonesia model.
MY	Malaysia model.
TH	Thailand model.

7-17. SCHEMATIC DIAGRAM — CD MOTOR SECTION —

- See page 81 for IC Block Diagrams.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A
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C
D
E
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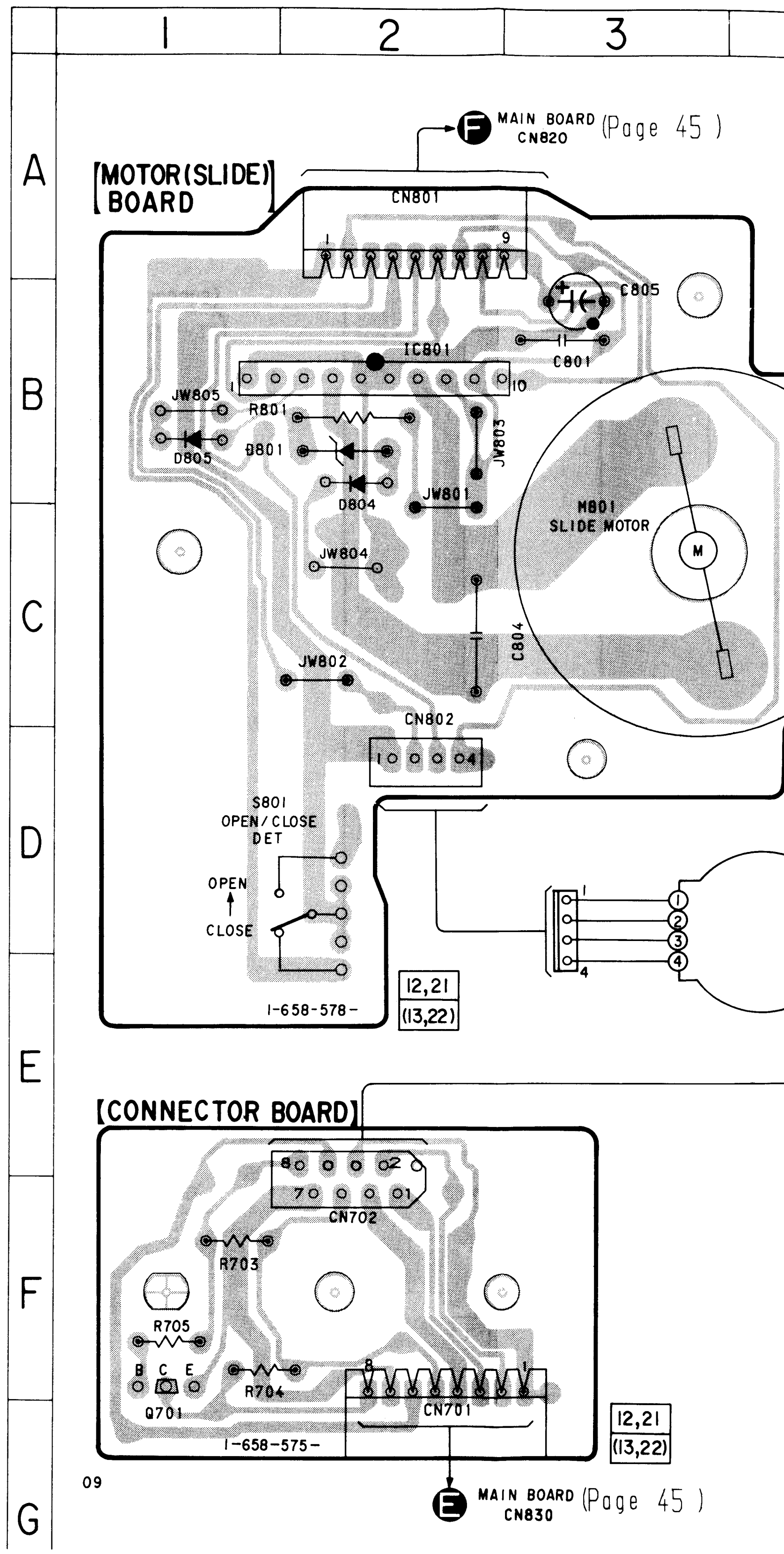
G
H
S811
ROTARY ENCODER
BU. TRAY ADDRESS DET
CN802
4P
【MOTOR (SLIDE) BOARD】
IC801
MOTOR DRIVER
IC801
BA6286N
GND
RIN
VREF
OUT2
RNF
GND
OUT1
VM
VCC
FIN
5.1
LOAD IN:0
5.6
0
0
7.2
5.1
LOAD OUT:0
JW803
D805
1N4148
R801
47
D801
UZ-5.6BSC
D804
1N4148
B+
C801
0.01
C805
10
50V
C804
0.01
M801
SLIDE MOTOR
S801
OPEN/CLOSE
DET
CN801
9P
OPEN
E1
E2
DGND
E3
LOADIN
LOADOUT
MGND
VCC
J
MAIN BOARD
CN820
(Page 50)
【SENSOR BOARD】
IC703
DISC SENSOR
IC702
TABLE SENSOR
R702
150
IC703
GP2S28
R701
820
IC702
RPI-1391
CN705
4P
【MOTOR (TURN) BOARD】
IC701
M54641L
TURN MOTOR
M701
C705
0.01
VCC
OUT2
IN1
GND
VREF
IN2
OUT1
VCC'
7.2
0
4.7
R707 47
0
7.2
IC701
MOTOR DRIVER
CN704
4P
D701
UZ-3.6BSB
C702 10 50V
C701 0.01
R706 330
CN703
8P
5.1
LOAD IN:0
LOAD OUT:0
5.1
LOAD IN:4.2
LOAD OUT:4.2
【CONNECTOR BOARD】
CN702
8P
CN701
8P
VCC
TBLR
TBLL
MGND
VDD
TBLSENS
DGND
DISCSENS
R703
33k
R704 10k
1.5
R705
1k
0
Q701
BA1A4M
INVERTER
E
MAIN BOARD
CN830
(Page 50)
09

NOTE

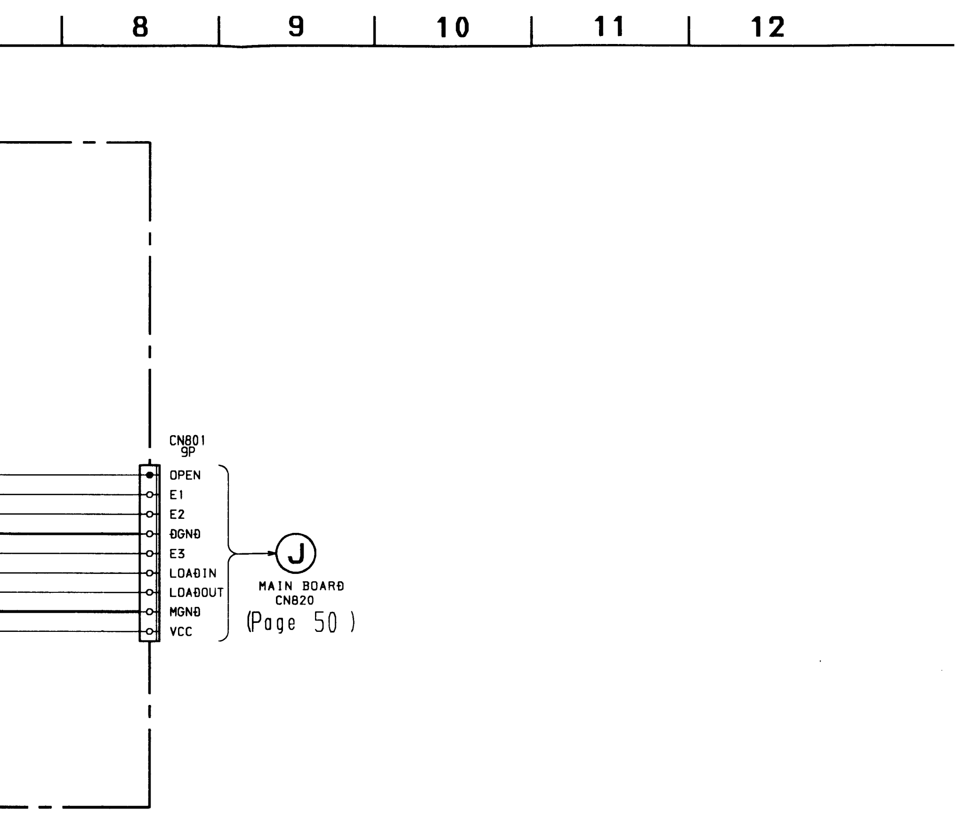
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- **B+** :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

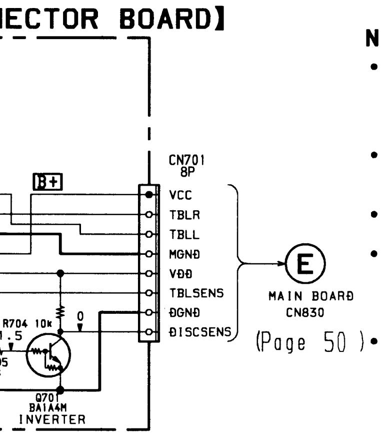
7-18. PRINTED WIRING BOARD — CD MOTOR SECTION —

- See page 19 for Circuit Boards Location.


1
2
3
A
B
C
D
E
F
G
F
MAIN BOARD
CN820
(Page 45)
MOTOR (SLIDE) BOARD
CN801
1
9
C805
IC801
10
C801
JW805
R801
D805
D801
JW803
D804
JW801
M801
SLIDE MOTOR
M
JW804
C804
JW802
CN802
1
4
S801
OPEN/CLOSE
DET
OPEN
CLOSE
1-658-578-
12,21
(13,22)
1
2
3
4
4
CONNECTOR BOARD
8
2
7
1
CN702
R703
R705
B C E
Q701
R704
8
1
CN701
1-658-575-
12,21
(13,22)
09
E
MAIN BOARD
CN830
(Page 45)

Note:
- o—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.


8
9
10
11
12
CN801 9P
OPEN
E1
E2
BGND
E3
LOADIN
LOADOUT
MGND
VCC
J
MAIN BOARD CN820
(Page 50)

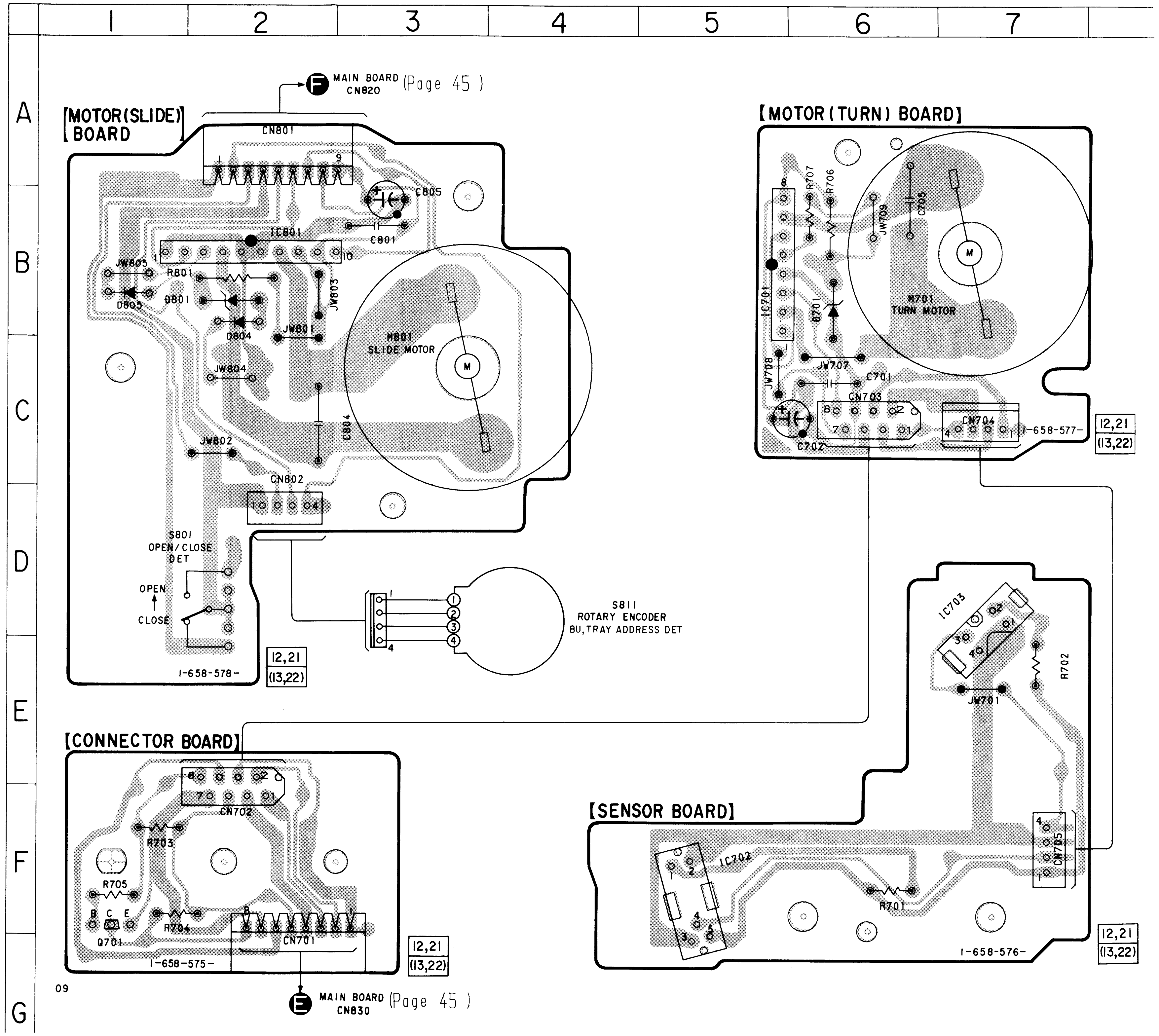

ECTOR BOARD]
B+
CN701 8P
VCC
TBLR
TBLL
MGND
VDD
TBLSENS
BGND
DISCSENS
E
MAIN BOARD CN830
(Page 50)
R704 10k
Q701 BA1A4M INVERTER

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

7-18. PRINTED WIRING BOARD — CD MOTOR SECTION —

• See page 19 for Circuit Boards Location.


1
2
3
4
5
6
7
A
B
C
D
E
F
G
F MAIN BOARD CN820 (Page 45)
[MOTOR(SLIDE) BOARD]
CN801
C805
IC801
C801
JW805
R801
D805
D801
D804
JW803
JW801
JW804
M801 SLIDE MOTOR
M
C804
JW802
CN802
S801 OPEN/CLOSE DET
OPEN
CLOSE
1-658-578-
12,21 (13,22)
S811 ROTARY ENCODER BU,TRAY ADDRESS DET
[MOTOR(TURN) BOARD]
R707
R706
JW709
C705
IC701
D701
M701 TURN MOTOR
JW708
JW707
C701
CN703
C702
CN704
1-658-577-
12,21 (13,22)
IC703
R702
JW701
[CONNECTOR BOARD]
CN702
R703
R705
R704
Q701
B C E
CN701
1-658-575-
12,21 (13,22)
09
E MAIN BOARD CN830 (Page 45)
[SENSOR BOARD]
IC702
R701
CN705
1-658-576-
12,21 (13,22)

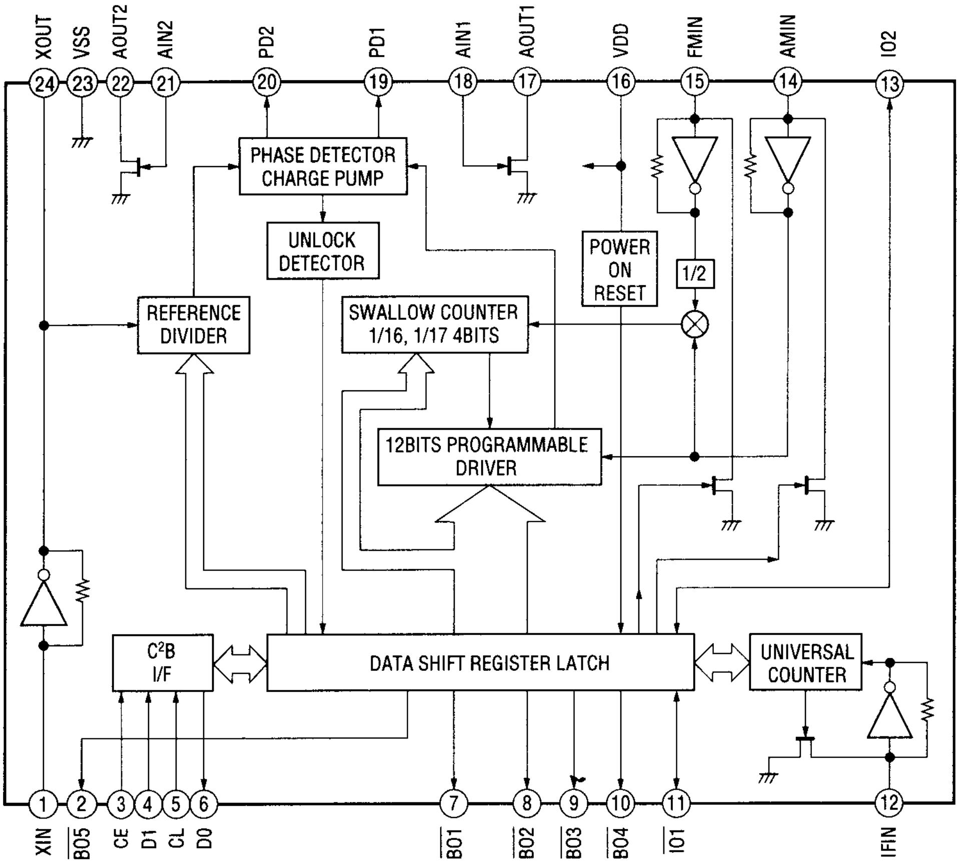
Note:

- o—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.

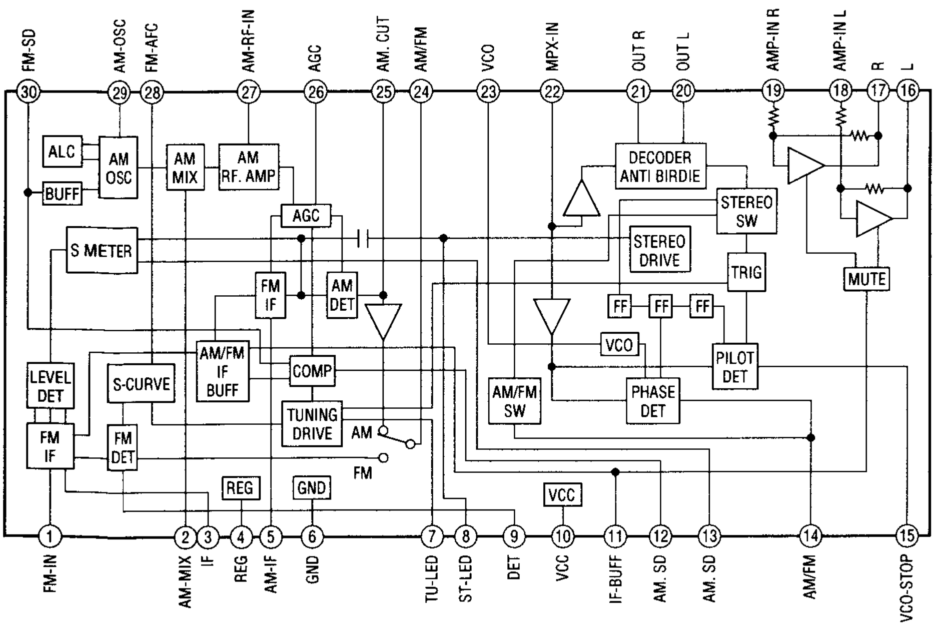
7-19. IC BLOCK DIAGRAMS

• Tuner section

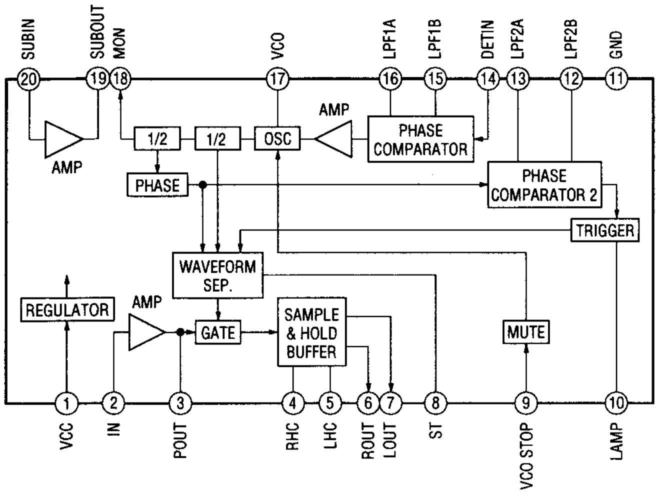
IC21 LC72130


XOUT
VSS
AOUT2
AIN2
PD2
PD1
AIN1
AOUT1
VDD
FMIN
AMIN
IO2
24
23
22
21
20
19
18
17
16
15
14
13
PHASE DETECTOR
CHARGE PUMP
UNLOCK
DETECTOR
POWER
ON
RESET
1/2
REFERENCE
DIVIDER
SWALLOW COUNTER
1/16, 1/17 4BITS
12BITS PROGRAMMABLE
DRIVER
C²B
I/F
DATA SHIFT REGISTER LATCH
UNIVERSAL
COUNTER
1
2
3
4
5
6
7
8
9
10
11
12
XIN
BO5
CE
DI
CL
DO
BO1
BO2
BO3
BO4
IO1
IFIN

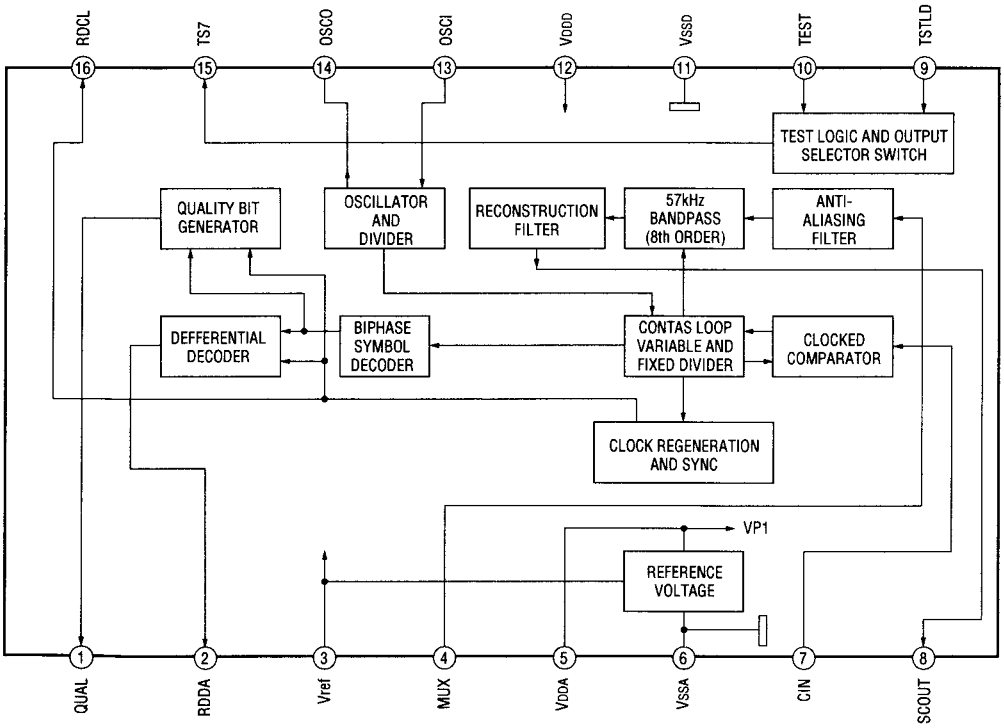
IC41 LA1835


FM-SD
AM-OSC
FM-AFC
AM-RF-IN
AGC
AM.CUT
AM/FM
VCO
MPX-IN
OUT R
OUT L
AMP-IN R
AMP-IN L
R
L
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
ALC
AM
OSC
BUFF
AM
MIX
AM
RF. AMP
AGC
S METER
FM
IF
AM
DET
DECODER
ANTI BIRDIE
STEREO
SW
STEREO
DRIVE
TRIG
MUTE
FF
FF
FF
VCO
PILOT
DET
PHASE
DET
AM/FM
SW
LEVEL
DET
S-CURVE
AM/FM
IF
BUFF
COMP
TUNING
DRIVE
AM
FM
FM
IF
FM
DET
REG
GND
VCC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
FM-IN
AM-MIX
IF
REG
AM-IF
GND
TU-LED
ST-LED
DET
VCC
IF-BUFF
AM. SD
AM. SD
AM/FM
VCO-STOP

IC1701 IR3R42

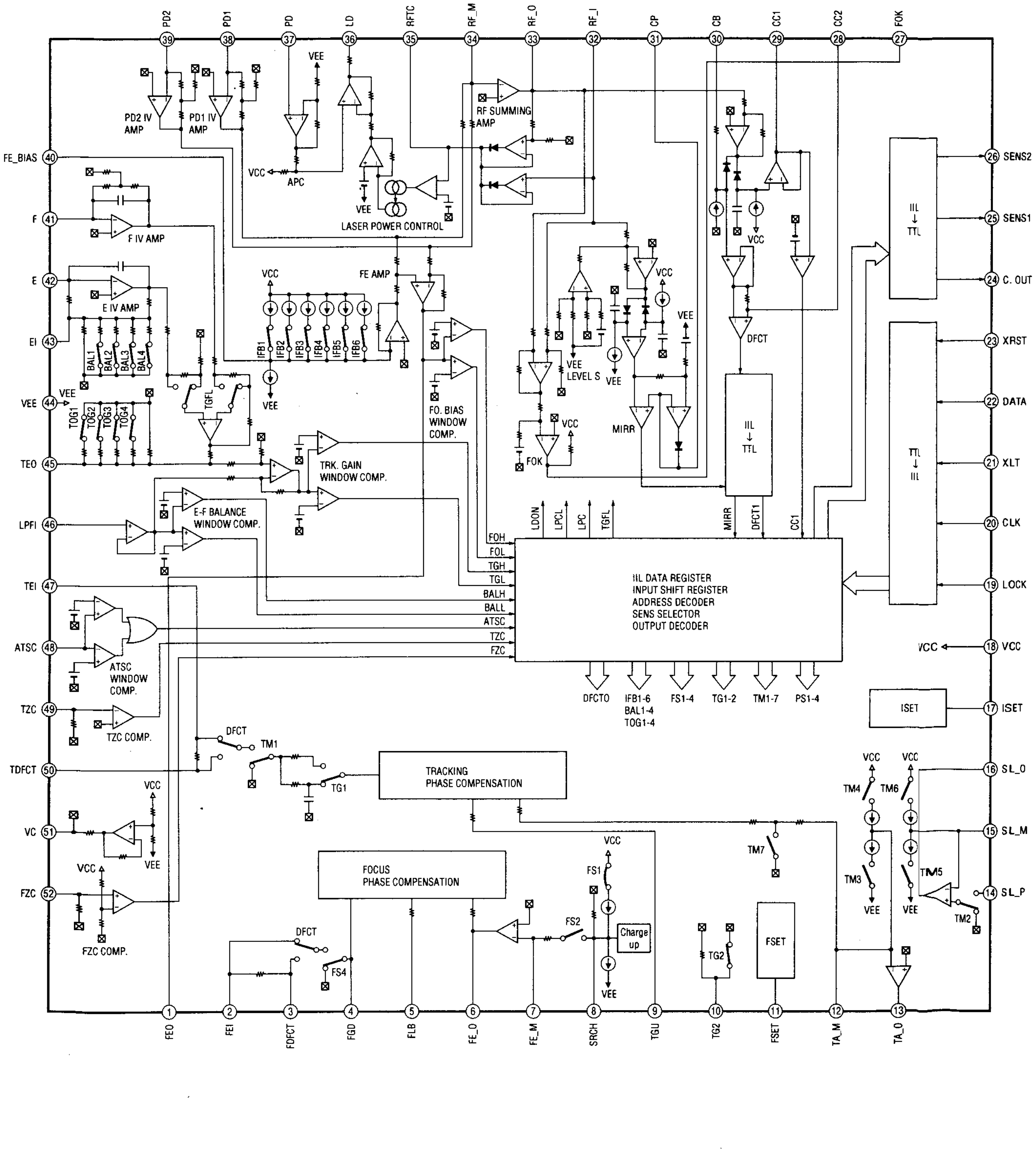

SUBIN
SUBOUT
MON
VCO
LPF1A
LPF1B
DETIN
LPF2A
LPF2B
GND
20
19
18
17
16
15
14
13
12
11
AMP
1/2
1/2
OSC
AMP
PHASE COMPARATOR
PHASE
PHASE COMPARATOR 2
TRIGGER
WAVEFORM SEP.
REGULATOR
AMP
GATE
SAMPLE & HOLD BUFFER
MUTE
1
2
3
4
5
6
7
8
9
10
VCC
IN
POUT
RHC
LHC
ROUT
LOUT
ST
VCO STOP
LAMP

IC1752 BU1922

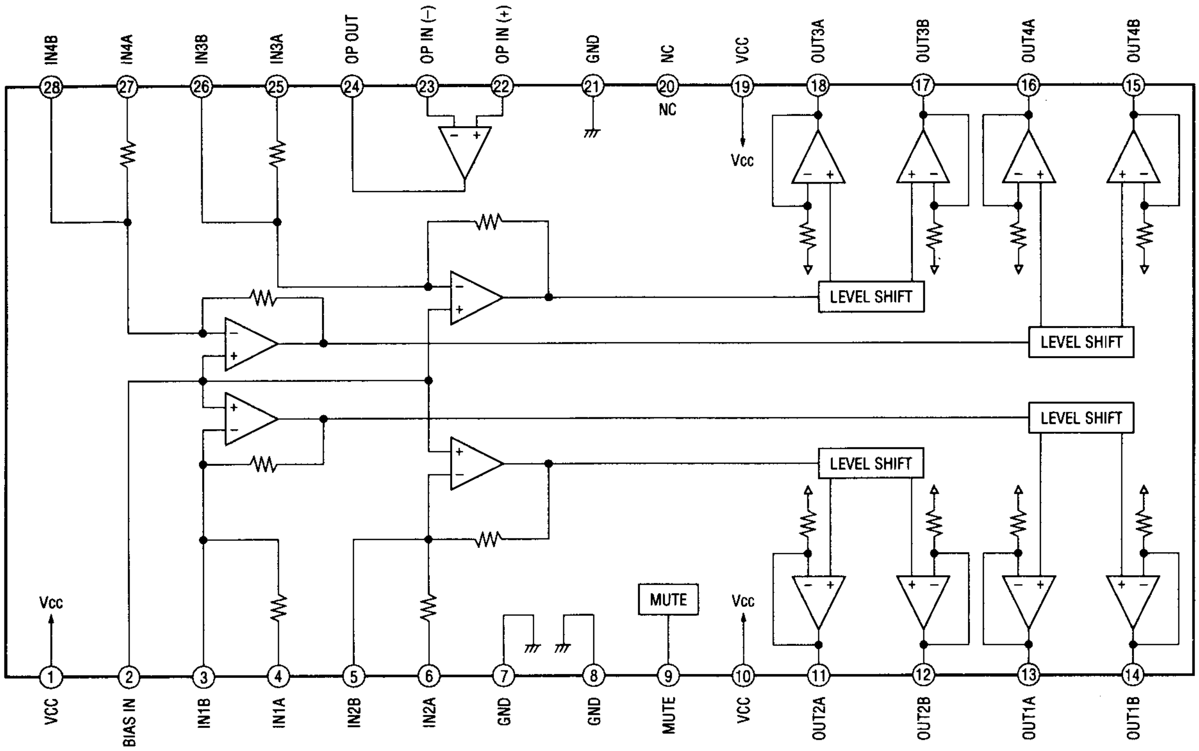

RDCL
TS7
OSCO
OSCI
VDDD
VSSD
TEST
TSTLD
16
15
14
13
12
11
10
9
TEST LOGIC AND OUTPUT SELECTOR SWITCH
QUALITY BIT GENERATOR
OSCILLATOR AND DIVIDER
RECONSTRUCTION FILTER
57kHz BANDPASS (8th ORDER)
ANTI-ALIASING FILTER
DEFFERENTIAL DECODER
BIPHASE SYMBOL DECODER
CONTAS LOOP VARIABLE AND FIXED DIVIDER
CLOCKED COMPARATOR
CLOCK REGENERATION AND SYNC
VP1
REFERENCE VOLTAGE
1
2
3
4
5
6
7
8
QUAL
RDDA
Vref
MUX
VDDA
VSSA
CIN
SCOUT

• CD section

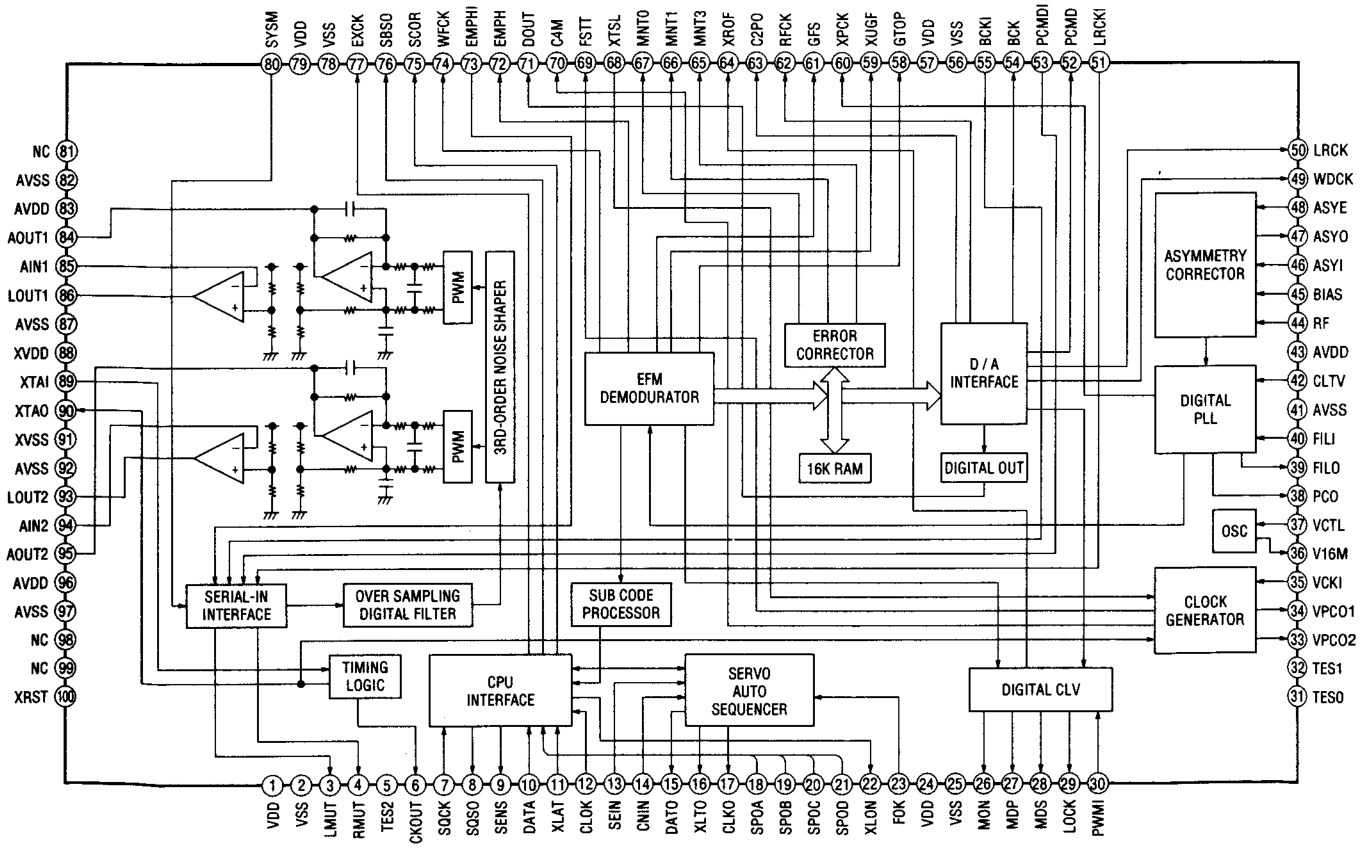
IC101 CXA1992AR


PD2
PD1
PD
LD
RFTC
RF_M
RF_O
RF_I
CP
CB
CC1
CC2
FOK
39
38
37
36
35
34
33
32
31
30
29
28
27
PD2 IV AMP
PD1 IV AMP
VEE
VCC
APC
RF SUMMING AMP
LASER POWER CONTROL
FE_BIAS 40
F 41
F IV AMP
E 42
E IV AMP
EI 43
BAL1
BAL2
BAL3
BAL4
VEE 44
TOG1
TOG2
TOG3
TOG4
TGFL
TEO 45
LPFI 46
TEI 47
ATSC 48
TZC 49
TDFCT 50
VC 51
FZC 52
FE AMP
IFB1
IFB2
IFB3
IFB4
IFB5
IFB6
FO. BIAS WINDOW COMP.
TRK. GAIN WINDOW COMP.
E-F BALANCE WINDOW COMP.
ATSC WINDOW COMP.
TZC COMP.
FZC COMP.
LEVEL S
FOK
MIRR
DFCT
IIL → TTL
TTL → IIL
LDON
LPCL
LPC
TGFL
MIRR
DFCT1
CC1
FOH
FOL
TGH
TGL
BALH
BALL
ATSC
TZC
FZC
IIL DATA REGISTER
INPUT SHIFT REGISTER
ADDRESS DECODER
SENS SELECTOR
OUTPUT DECODER
DFCTO
IFB1-6
BAL1-4
TOG1-4
FS1-4
TG1-2
TM1-7
PS1-4
26 SENS2
25 SENS1
24 C. OUT
23 XRST
22 DATA
21 XLT
20 CLK
19 LOCK
18 VCC
17 ISET
ISET
16 SL_O
15 SL_M
14 SL_P
TM1
TM2
TM3
TM4
TM5
TM6
TM7
TG1
TG2
TRACKING PHASE COMPENSATION
FOCUS PHASE COMPENSATION
FS1
FS2
FS4
Charge up
FSET
1
2
3
4
5
6
7
8
9
10
11
12
13
FEO
FEI
FDFCT
FGD
FLB
FE_O
FE_M
SRCH
TGU
TG2
FSET
TA_M
TA_O

IC102 BA5941FP

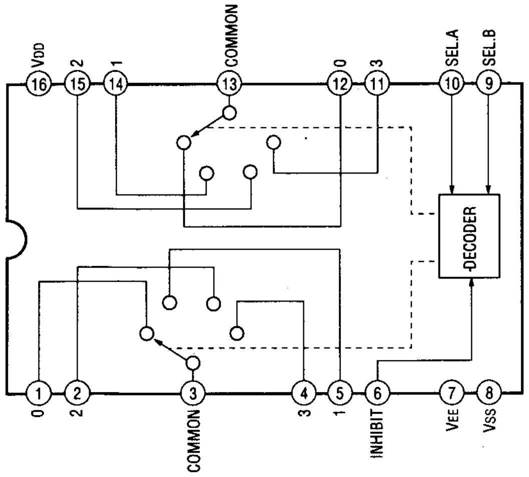

IN4B
IN4A
IN3B
IN3A
OP OUT
OP IN (–)
OP IN (+)
GND
NC
VCC
OUT3A
OUT3B
OUT4A
OUT4B
28
27
26
25
24
23
22
21
20
19
18
17
16
15
NC
Vcc
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
Vcc
MUTE
Vcc
1
2
3
4
5
6
7
8
9
10
11
12
13
14
VCC
BIAS IN
IN1B
IN1A
IN2B
IN2A
GND
GND
MUTE
VCC
OUT2A
OUT2B
OUT1A
OUT1B

IC103 CXD2519Q

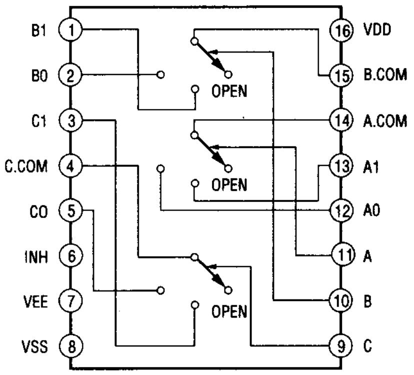

SYSM 80
VDD 79
VSS 78
EXCK 77
SBSO 76
SCOR 75
WFCK 74
EMPHI 73
EMPH 72
DOUT 71
C4M 70
FSTT 69
XTSL 68
MNT0 67
MNT1 66
MNT3 65
XROF 64
C2PO 63
RFCK 62
GFS 61
XPCK 60
XUGF 59
GTOP 58
VDD 57
VSS 56
BCKI 55
BCK 54
PCMDI 53
PCMD 52
LRCKI 51
50 LRCK
49 WDCK
48 ASYE
47 ASYO
46 ASYI
45 BIAS
44 RF
43 AVDD
42 CLTV
41 AVSS
40 FILI
39 FILO
38 PCO
37 VCTL
36 V16M
35 VCKI
34 VPCO1
33 VPCO2
32 TES1
31 TESO
NC 81
AVSS 82
AVDD 83
AOUT1 84
AIN1 85
LOUT1 86
AVSS 87
XVDD 88
XTAI 89
XTAO 90
XVSS 91
AVSS 92
LOUT2 93
AIN2 94
AOUT2 95
AVDD 96
AVSS 97
NC 98
NC 99
XRST 100
1 VDD
2 VSS
3 LMUT
4 RMUT
5 TES2
6 CKOUT
7 SQCK
8 SQSO
9 SENS
10 DATA
11 XLAT
12 CLOK
13 SEIN
14 CNIN
15 DATO
16 XLTO
17 CLKO
18 SPOA
19 SPOB
20 SPOC
21 SPOD
22 XLON
23 FOK
24 VDD
25 VSS
26 MON
27 MDP
28 MDS
29 LOCK
30 PWMI
PWM
PWM
3RD-ORDER NOISE SHAPER
EFM DEMODURATOR
ERROR CORRECTOR
16K RAM
D / A INTERFACE
DIGITAL OUT
ASYMMETRY CORRECTOR
DIGITAL PLL
OSC
CLOCK GENERATOR
SERIAL-IN INTERFACE
OVER SAMPLING DIGITAL FILTER
SUB CODE PROCESSOR
TIMING LOGIC
CPU INTERFACE
SERVO AUTO SEQUENCER
DIGITAL CLV

- **Main section**

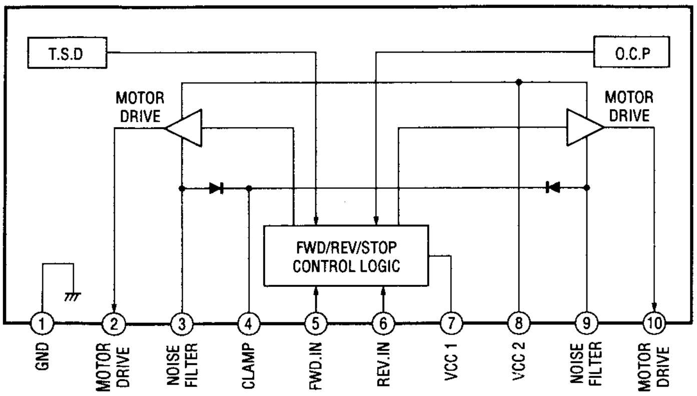
IC102 MC14052BCP


VDD
2
1
COMMON
0
3
SEL.A
SEL.B
16
15
14
13
12
11
10
9
DECODER
1
2
3
4
5
6
7
8
0
2
COMMON
3
1
INHIBIT
VEE
VSS

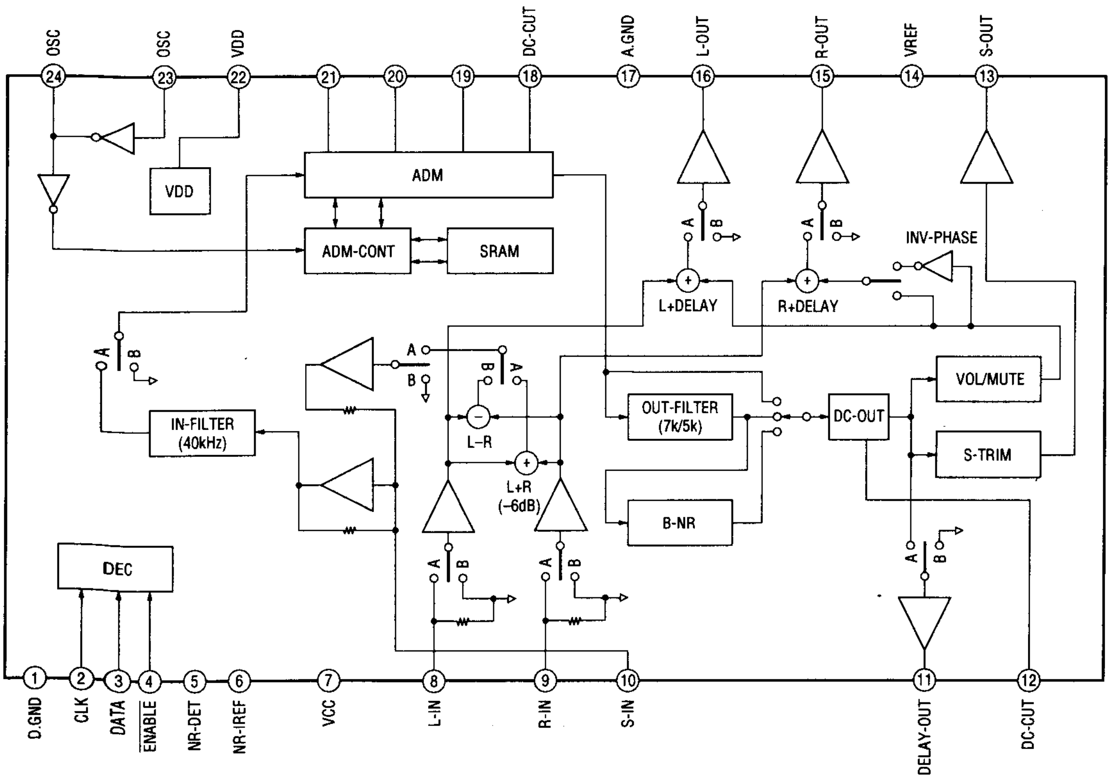
IC103, 1702 MC14053BCP


B1
B0
C1
C.COM
C0
INH
VEE
VSS
1
2
3
4
5
6
7
8
OPEN
OPEN
OPEN
16 VDD
15 B.COM
14 A.COM
13 A1
12 A0
11 A
10 B
9 C

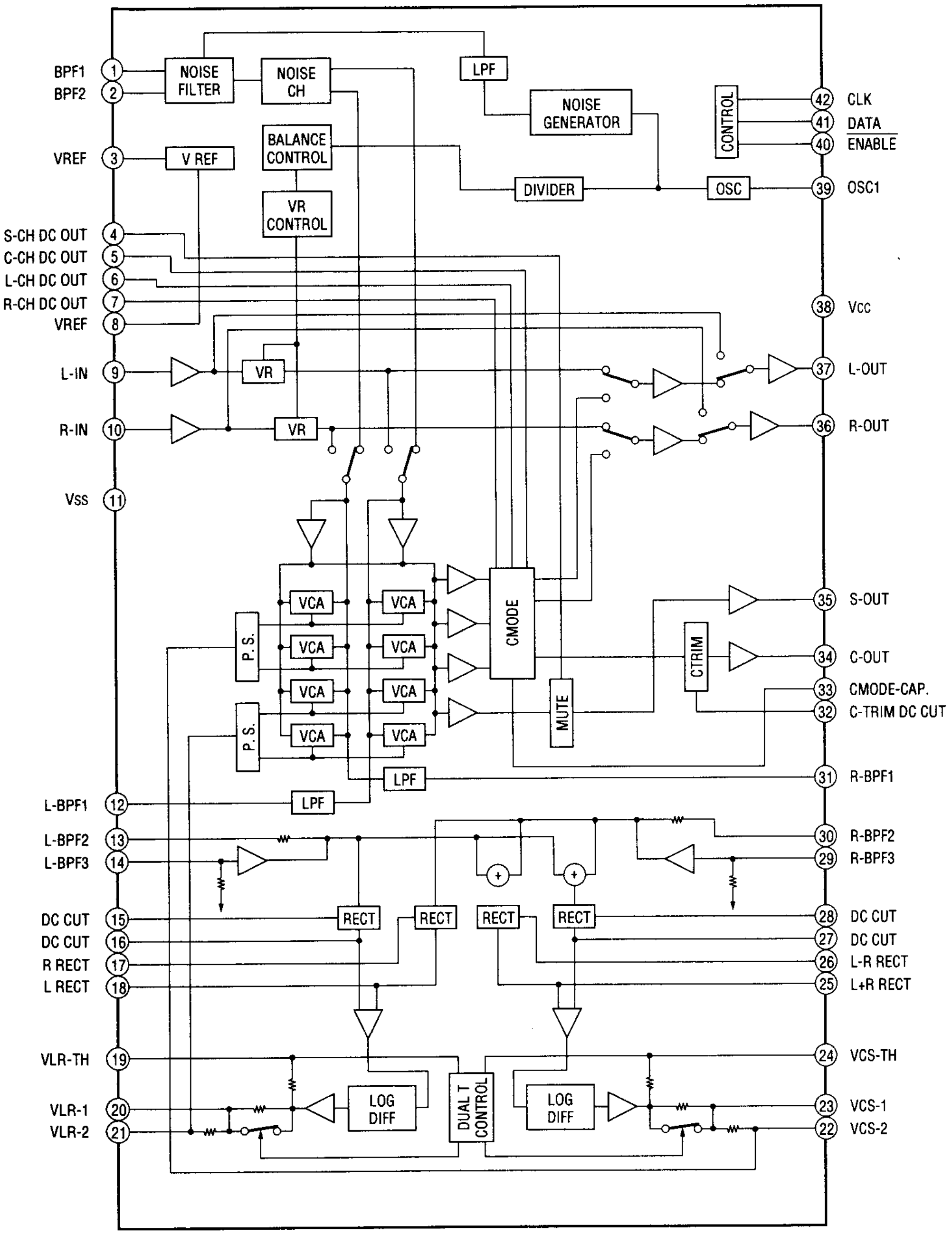
IC402 LB1641


T.S.D
O.C.P
MOTOR DRIVE
MOTOR DRIVE
FWD/REV/STOP CONTROL LOGIC
1
2
3
4
5
6
7
8
9
10
GND
MOTOR DRIVE
NOISE FILTER
CLAMP
FWD.IN
REV.IN
VCC 1
VCC 2
NOISE FILTER
MOTOR DRIVE

IC602 LV1016

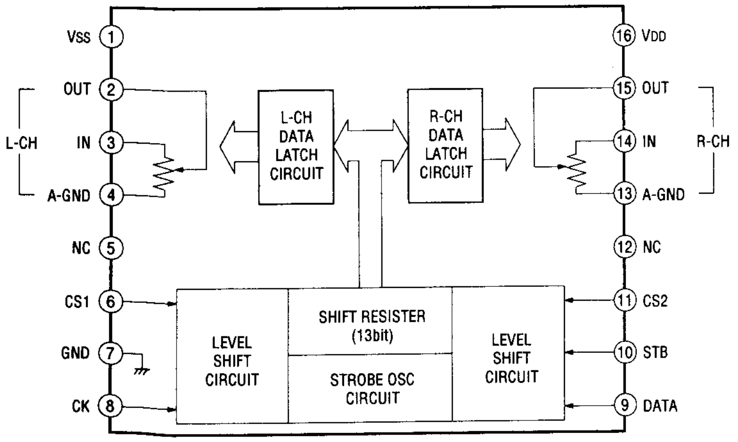

OSC
OSC
VDD
DC-CUT
A.GND
L-OUT
R-OUT
VREF
S-OUT
24
23
22
21
20
19
18
17
16
15
14
13
VDD
ADM
ADM-CONT
SRAM
A
B
A
B
INV-PHASE
L+DELAY
R+DELAY
A
B
A
B
A
B
L-R
L+R
(−6dB)
IN-FILTER
(40kHz)
OUT-FILTER
(7k/5k)
DC-OUT
VOL/MUTE
S-TRIM
B-NR
DEC
A
B
A
B
A
B
1
2
3
4
5
6
7
8
9
10
11
12
D.GND
CLK
DATA
ENABLE
NR-DET
NR-IREF
VCC
L-IN
R-IN
S-IN
DELAY-OUT
DC-CUT

IC601 LA2786



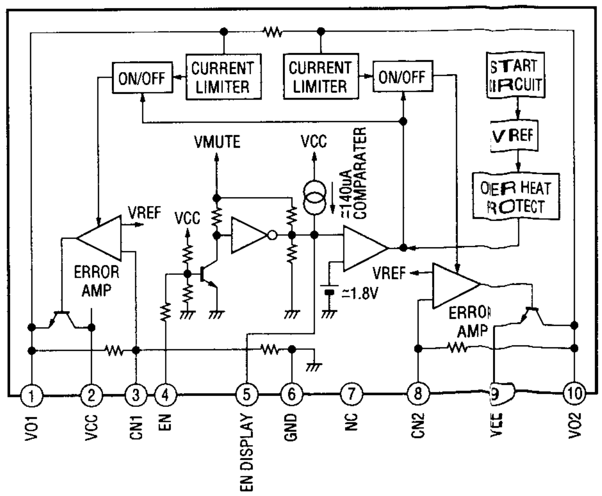
BPF1 ①
BPF2 ②
VREF ③
S-CH DC OUT ④
C-CH DC OUT ⑤
L-CH DC OUT ⑥
R-CH DC OUT ⑦
VREF ⑧
L-IN ⑨
R-IN ⑩
Vss ⑪
L-BPF1 ⑫
L-BPF2 ⑬
L-BPF3 ⑭
DC CUT ⑮
DC CUT ⑯
R RECT ⑰
L RECT ⑱
VLR-TH ⑲
VLR-1 ⑳
VLR-2 (21)
(42) CLK
(41) DATA
(40) ENABLE
(39) OSC1
(38) Vcc
(37) L-OUT
(36) R-OUT
(35) S-OUT
(34) C-OUT
(33) CMODE-CAP.
(32) C-TRIM DC CUT
(31) R-BPF1
(30) R-BPF2
(29) R-BPF3
(28) DC CUT
(27) DC CUT
(26) L-R RECT
(25) L+R RECT
(24) VCS-TH
(23) VCS-1
(22) VCS-2
NOISE FILTER
NOISE CH
LPF
NOISE GENERATOR
CONTROL
V REF
BALANCE CONTROL
DIVIDER
OSC
VR CONTROL
VR
VR
VCA
VCA
VCA
VCA
VCA
VCA
VCA
VCA
P.S.
P.S.
CMODE
CTRIM
MUTE
LPF
LPF
RECT
RECT
RECT
RECT
+
+
LOG DIFF
DUAL T CONTROL
LOG DIFF

IC604 TC9210P



Vss ①
OUT ②
L-CH
IN ③
A-GND ④
NC ⑤
CS1 ⑥
GND ⑦
CK ⑧
⑯ VDD
⑮ OUT
⑭ IN
R-CH
⑬ A-GND
⑫ NC
⑪ CS2
⑩ STB
⑨ DATA
L-CH DATA LATCH CIRCUIT
R-CH DATA LATCH CIRCUIT
LEVEL SHIFT CIRCUIT
SHIFT RESISTER (13bit)
STROBE OSC CIRCUIT
LEVEL SHIFT CIRCUIT

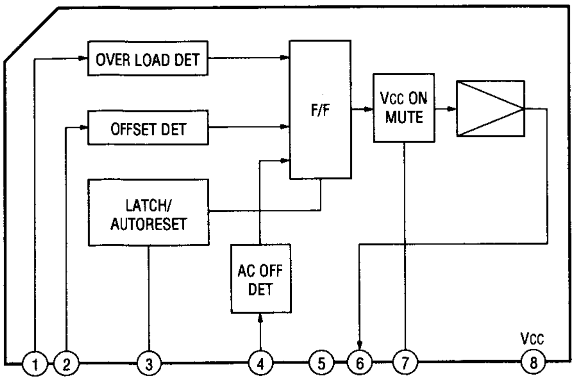
IC901 LA5617



ON/OFF
CURRENT LIMITER
CURRENT LIMITER
ON/OFF
START CIRCUIT
VREF
OVER HEAT PROTECT
VMUTE
VCC
≃140uA
COMPARATER
VREF
VCC
ERROR AMP
≃1.8V
VREF
ERROR AMP
① VO1
② VCC
③ CN1
④ EN
⑤ EN DISPLAY
⑥ GND
⑦ NC
⑧ CN2
⑨ VEE
⑩ VO2

• Power section

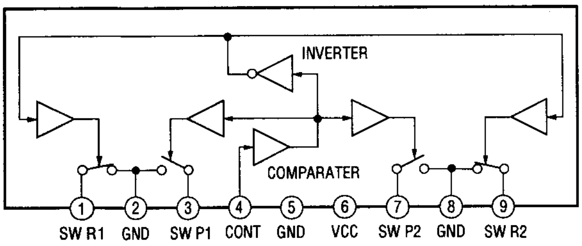
IC301 uPC1237HA



OVER LOAD DET
OFFSET DET
LATCH/ AUTORESET
F/F
Vcc ON MUTE
AC OFF DET
Vcc
1
2
3
4
5
6
7
8

• Deck section

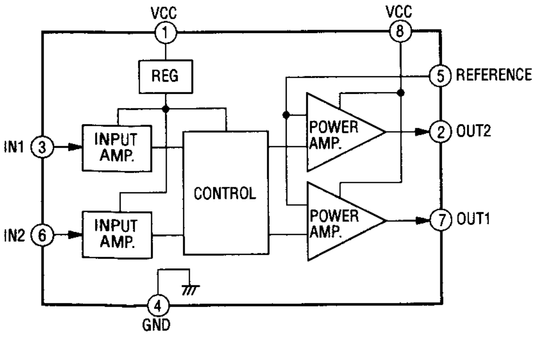
IC602 uPC1330HA



INVERTER
COMPARATER
1
2
3
4
5
6
7
8
9
SW R1
GND
SW P1
CONT
GND
VCC
SW P2
GND
SW R2

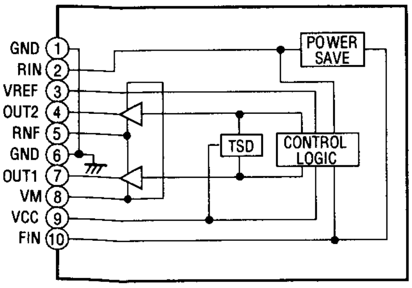
• CD motor section

IC701 M54641L



VCC
1
VCC
8
REG
5 REFERENCE
POWER AMP.
2 OUT2
IN1 3
INPUT AMP.
CONTROL
IN2 6
INPUT AMP.
POWER AMP.
7 OUT1
4
GND

IC801 BA6286N



GND 1
RIN 2
VREF 3
OUT2 4
RNF 5
GND 6
OUT1 7
VM 8
VCC 9
FIN 10
POWER SAVE
TSD
CONTROL LOGIC

7-20. IC PIN FUNCTIONS

• IC101 FOCUS/TRACKING/SLED SERVO RF AMP (CXA1992AR)

Pin No.	Pin Name	I/O	Function
1	FEO	O	Focus error amplifier output Connected internally to the window comparator input for bias adjustment
2	FEI	I	Focus error input
3	FDFCT	I	Capacitor connection pin for defect time constant
4	FGD	I	Ground this pin through a capacitor for cutting the focus servo high-frequency gain
5	FLB	I	External time constant setting pin for boosting the focus servo low-frequency
6	FE O	O	Focus drive output
7	FE M	I	Focus amplifier inverted input
8	SRCH	I	External time constant setting pin for generating focus search waveform
9	TGU	I	External time constant setting pin for switching tracking high-frequency gain
10	TG2	I	External time constant setting pin for switching tracking high-frequency gain
11	FSET	I	Peak frequency setting pin for focus and tracking phase compensation amplifier
12	TA M	I	Tracking amplifier inverted input
13	TA O	O	Tracking drive output
14	SL P	I	Sled amplifier non-inverted input
15	SL M	I	Sled amplifier inverted input
16	SL O	O	Sled drive output
17	ISET	I	Connect an external capacitance to set the current which determines the Focus search, Track jump, and Sled kick heights
18	Vcc	I	Positive power supply
19	LOCK	I	The sled overrun prevention circuit operates when this pin is Low (No pull-upresistance)
20	CLK	I	Serial data transfer clock input from CPU (No pull-up resistance)
21	XLT	I	Lach input from CPU (No pull-up resistance)
22	DATA	I	Serial data input from CPU (No pull-up resistance)
23	XRST	I	Reset input; resets at Low (No pull-up resistance)
24	C.OUT	O	Track number count signal output
25	SENS1	O	Outputs FZC, DFCT1, TZC, BALH, TGH, FOH, ATSC, and others according to the command from CPU
26	SENS2	O	Outputs DFCT2, MIRR, BALL, TGL, FOL,and others according to the command from CPU
27	FOK	O	Focus OK comparator output
28	CC2	I	Input for the defect bottom hold output with capacitance coupled
29	CC1	O	Defect bottom hold output Connected internally to the interruption comparator input
30	CB	I	Connection pin for defect bottom hold capacitor
31	CP	I	Connection pin for MIRR hold capacitor MIRR comparator non-inverted input
32	RF I	I	Input for the RF summing amplifier output with capacitance coupled
33	RF O	O	RF summing amplifier output Eye-pattern check point

FZC : Focus zero-cross
DFCT : Defect
TZC : Tracking zero-cross
BALH : E-F Balance (High)
TGH : Tracking Gain (High)
FOH : Focus Bias (High)
ATSC : Anti Shock
MIRR : Mirror
BALL : E-F Balance (Low)
TGL : Tracking Gain (Low)
FOL : Focus Bias (Low)

Pin No.	Pin Name	I/O	Function
34	RF M	I	RF summing amplifier inverted input The RF amplifier gain is determined by the resistance connected between this pin and RFO pin
35	RFTC	I	External time constant setting pin during RF level control
36	LD	O	APC amplifier output
37	PD	I	APC amplifier input
38	PD1	I	RF I-V amplifier inverted input Connect these pins to the photo diode A+C and B+D pins
39	PD2	I	
40	FE BIAS	I	Bias adjustment of focus error amplifier Leave this pin open for automatic adjustment
41	F	I	F I-V and E I-V amplifier inverted input Connect these pins to photo diodes F and E
42	E	I	
43	EI	–	I-V amplifier E gain adjustment (When not using automatic balance adjustment)
44	VEE	–	Negative power supply
45	TEO	O	Tracking error amplifier output E-F signal is output
46	LPFI	I	Comparator input for balance adjustment (Input from TEO through LPF)
47	TEI	I	Tracking error input
48	ATSC	I	Window comparator input for ATSC detection
49	TZC	I	Trackig zero-cross comparator input
50	TDFCT	I	Capacitor connection pin for defect time constant
51	VC	O	(VCC + VEE)/2 direct voltage output
52	FZC	I	Focus zero-cross comparator input

APC : Auto Power Control

- **IC103 DIGITAL SIGNAL PROCESSOR (CXD2519Q)**

Pin No.	Pin Name	I/O	Function
1	VDD	–	+5V power supply
2	VSS	–	Ground
3	LMUT	O	Lch "L" detection flog (Not used)
4	RMUT	O	Rch "L" detection flog (Not used)
5	ACDT	O	Test output (Not used)
6	CKOUT	O	Master clock divider output (Not used)
7	SQCK	I	Clock input for SQSO read out
8	SQSO	O	Serial output for Sub-Q 80bit
9	SENS	O	SENS signal output to CPU
10	DATA	I	Serial data input, supplied from CPU
11	XLAT	I	Latch input, supplied from CPU
12	CLOK	I	Serial data transfer clock input, supplied from CPU
13	SEIN	I	SENS input from IC101
14	CNIN	I	Numbers of track jump counted signal input
15	DATO	O	Serial data output to IC101
16	XLTO	O	Serial data latch output to IC101
17	CLKO	O	Serial data transfer clock output to IC101
18	SPOA	I	Micro computer demodulation interface (Input A)
19	SPOB	I	Micro computer demodulation interface (Input B)
20	SPOC	I	Micro computer demodulation interface (Input C)
21	SPOD	I	Micro computer demodulation interface (Input D)
22	XLON	O	Micro computer demodulation interface (Output)
23	FOK	I	Focus OK input
24	VDD	–	+5V power supply
25	VSS	–	Ground
26	MON	O	Output to control ON/OFF of spindle motor (Not used)
27	MDP	O	Output to control spindle motor servo
28	MDS	O	Output to control spindle motor servo (Not used)
29	LOCK	O	GFS is sampled by 460Hz
30	PWMI	I	Input to control the outside spindle motor
31	TES0	I	Test pin (Connected to ground)
32	TES1	I	Test pin (Connected to ground)
33	VPCO2	O	Charge-pump output (Not used)
34	VPCO1	O	Charge-pump output (Not used)
35	VCKI	I	VCO2 oscillator input (Not used)
36	V16M	O	VCO2 oscillator output (Not used)
37	VCTL	I	VCO2 control voltage input
38	PCO	O	Charge-pump output to master PLL
39	FILO	O	Filter output to master PLL
40	FILI	I	Filter input for master PLL

GFS : Guarded Frame Sync
PLL : Phase Locked Loop

Pin No.	Pin Name	I/O	Function
41	AVSS	–	Analog ground
42	CLTV	I	Control voltage input for VCO
43	AVDD	–	Analog power supply
44	RF	I	EFM signal input
45	BIAS	I	Asymmetry circuit constant current input
46	ASYI	I	Asymmetry comparate voltage input
47	ASYO	O	EFM full swing output (“L” =Vss, “H” =VDD)
48	ASYE	I	Asymmetry circuit ON/OFF (“L”=OFF, “H”=ON)
49	WDCK	O	D/A interface Word clock f=2fs (Not used)
50	LRCK	O	D/A interface LR clock output f=Fs
51	LRCKI	I	D/A interface LR clock input f=Fs
52	PCMD	O	D/A interface Serial data output
53	PCMDI	I	D/A interface Serial data input
54	BCK	O	D/A interface Bit clock output
55	BCKI	I	D/A interface Bit clock input
56	VSS	–	Ground
57	VDD	–	+5V power supply
58	GTOP	O	Not used
59	XUGF	O	Not used
60	XPLCK	O	EFM decoder PLL clock output
61	GFS	O	“H” Playback EFM sync and interpolation protection timming much
62	RFCK	O	Read frame clock signal output
63	C2PO	O	Not used
64	XRAOF	O	Internal RAM overflow detection signal output (Not used)
65	MNT3	O	Not used
66	MNT1	O	Not used
67	MNT0	O	Not used
68	XTSL	I	Not used
69	FSTT	O	2/3 divider output (Not used)
70	C4M	O	4.2336MHz output(Not used)
71	DOUT	O	Digital audio signal output
72	EMPH	O	Playback disc output in emphasis mode
73	EMPHI	I	“H” =Input when de-emphasis ON
74	WFCK	O	Write frame clock signal output
75	SCOR	O	Sub-code sync output
76	SBSO	O	Sub-P through Sub-W serial output
77	EXCK	I	Clock input for SBSO read-out
78	VSS	–	Ground
79	VDD	–	+5V power supply
80	SYSM	I	System mute input

EFM : Eight to Fourteen Modulation

Pin No.	Pin Name	I/O	Function
81	—	–	Not used
82	AVSS	–	Analog ground
83	AVDD	–	Analog power supply
84	AOUT1	O	Lch analog output
85	AIN1	I	Lch opamp input
86	LOUT1	O	Lch line output
87	AVSS	–	Analog ground
88	XVDD	–	Master clock power supply
89	XTAI	I	X'tal oscillator circuit input
90	XTAO	O	X'tal oscillator circuit output
91	XVSS	–	Master clock ground
92	AVSS	–	Analog ground
93	LOUT2	O	Rch line output
94	AIN2	I	Rch opamp input
95	AOUT2	O	Rch analog output
96	AVDD	–	Analog power supply
97	AVSS	–	Analog ground
98	—	–	Not used
99	—	–	Not used
100	XRST	I	System reset input

• IC601 DISPLAY CONTROL (TMP87CH75F-6543)

Pin No.	Pin Name	I/O	Function
1	SEG35	O	FL segment signal output
2	VLOAD	–	Power supply (–25V) for FL segment signal output
3 to 10	LED1 to LED8	O	LED driver output
11	VSS	–	Ground
12	X-OUT	O	X'tall (8MHz)
13	X-IN	I	
14	RESET	I	Reset signal input from main controller
15	LED9	O	LED driver output (Not used)
16	LED10	O	LED driver output
17	TEST	I	Connected ground
18 to 22	LED11 to LED15	O	LED driver output
23	LED16	O	LED driver output (Not used)
24	VOL-A	I	Rotary encoder (S701) pulse input
25	LED17	O	LED driver output
26	JOG-A	I	Rotaly encoder (S711) pulse input
27	CLOCK	I	Serial clock input from main controller
28	DATA	I	Serial data input from main controller
29	LED SELECT	O	LED select signal output
30	VDD	–	Power supply (+5V)
31	VSS	–	Ground
32	MODEL	I	Version select signal input
33 to 37	KEY1 to KEY5	I	Key input
38	EWS STANDBY	I	Not used
39	SIRCS	I	Remote commander signal input
40	VOL-B	I	Rotary encoder (S701) pulse input
41	JOG-B	I	Rotary encoder (S711) pulse input
42	SPEANA-1	I	Spectrum analyzer input
43	SPEANA-2	I	Spectrum analyzer input
44	SPEANA-3	I	Spectrum analyzer input
45	SPEANA-4	I	Spectrum analyzer input
46	L + R	I	Spectrum analyzer (high frequency) input
47	EWS SIGNAL/LED18	O	Not used
48	VASS	–	Ground
49	VAREF	I	Analog reference voltage input
50	VDD	–	Power supply (+5V)
51 to 56	GR1 to GR16	O	FL gride signal output
67 to 100	SEG1 to SEG34	O	FL segment signal output

FL : Fluorescent indicator tube

• IC701 MASTER CONTROL (uPD780018YGF-013-3BA)

Pin No.	Pin Name	I/O	Function
1	TA-MUTE	O	Line mute signal output
2	DBFB-H/L	O	DBFB H/L select signal output
3	427-LT	O	Latch signal output for IC201 (62427)
4	KCON-LT	O	Not used
5	KCON-ON	O	
6	F-RELAY	O	Front speaker relay control output (Not used)
7	R-RELAY	O	Rear speaker relay control output
8	PL-RELAY	O	Not used
9	TEST	I	Connected to ground
10	X2	O	X'tal (5MHz)
11	X1	I	
12	VDD	–	Power supply (+5V)
13	XT2	O	X'tal (32.768 KHz)
14	XT1	I	
15	RESET	I	Reset signal input
16	INT/IN	I	Connected to ground
17	INT/IN/OUT	I	
18	SCOR	O	Subcode data request signal output
19	SOFT-TEST	O	Software test port
20	AC-CUT	I	Back up signal input
21	RDS-INT	I	RDS data interrupt input
22	RDS-DATA	I	RDS data interrupt input
23	VDD	–	Power supply (+5V)
24	AVDD	I	Analog reference voltage input.
25	ADJ	I	CD adjust point port Normal "H"
26	A-SHUT	I	A Deck reel pulse detector
27	B-SHUT	I	B Deck reel pulse detector
28	B-HALF	I	Half detector signal input
29	CLK-CHECK	I	Connected to ground
30	SPEC-IN	I	Version select signal input
31	ADJ 2	I	Connected to ground
32	DEMO-CHANGE	I	DEMO H/L select signal input (Fixed at fixed at "L")
33	AVSS	–	Ground
34	SQ-DATA-IN	I	Subcode Q data clock input
35	—	–	Not used
36	SQ-CLK	I	Sub code Q data clock input
37	SW-ON/OFF	O	Not used
38, 39	FUNC 1, 2	I	Connected to ground
40	VSS	–	Ground
41	VOL-LAT	O	Latch signal to erectrial volume (IC604)
42	PL-LAT	O	Latch signal to pro-logic (IC601, 602)
43	COM-DIN	I	Connected to ground
44	COM-DOUT	O	Common serial data output

Pin No.	Pin Name	I/O	Function
45	COM-CLK	O	Common serial clock output
46	CD-POWER	O	CD power on signal output
47	CD-DATA	O	CD data output
48	CD-CLK	O	CD clock output
49	MSM-CMD	O	Not used
50	MSM-BUSY	I	Connected to ground
51	MSM-LT	O	Not used
52	MSM-NAR	I	
53	MSM-CH	O	
54	INPUT-CHANGE	O	Input sensitivity switching output
55	IIC-DATA	O	Data output for IC601
56	IIC-CLK	O	Clock output for IC601
57	XRST	O	CD reset signal output
58	XLT	O	CD latch signal output
59	FOUCUS-SW	O	Not used
60	TBL-L	O	Table motor control output
61	TBL-R	O	
62	TRAY-LED	O	CD tray LED ON/OFF output (Not used)
63	LOAD-OUT	O	Loading motor control signal output
64	LOAD-IN	O	
65	ST-CLK	O	Tuner clock output
66	ST-DIN	I	Tuner data input
67	ST-DOUT	O	Tuner data output
68	ST-CE	O	Tuner chip enable output
69	TUNED	I	Tuned detection for tuner
70	STEREO	I	Stereo detection for tuner
71	Vss	–	Ground
72	ST-MUTE	O	Tuner mute signal output
73	SENS2	I	BD Condition signal input
74	SENS	I	
75	DISC-SENS	I	Slit sensor of disc table input
76	T-SENS	I	CD table detection signal input
77	UP-SW	I	Up SW (S201) signal input (Not used)
78	ENC 3	I	Disc tray adrress detect encoder input
79	ENC 2	I	
80	ENC 1	I	
81	OUT-OPEN	O	Loading out detection signal output
82	CAP-M-H/N	O	Capstan motor H/N speed select signal output
83	B-TRG	O	Trigger motor control output
84	A-TRG	O	Trigger motor control output
85	TRG-LOW	O	Trigger motor control output
86	CAP-M-ON/OFF	O	Capstan motor ON/OFF signal output
87	PB-A/B	O	PB Deck A/Deck B select output

Pin No.	Pin Name	I/O	Function
88	EQ-H/N	O	Equalizer H/N select output
89	BIAS	O	Bias ON/OFF signal output
90	REC-MUTE	O	REC mute ON/OFF selection output
91	NR-ON/OFF	O	NR ON/OFF signal output
92	R/P-PASS	O	REC/PB/PASS selection output
93	TC-MUTE	O	TC mute ON/OFF selection output
94	A-PLAY-SW	I	Deck A play detect
95	B-PLAY-SW	I	Deck B play detect
96	TC-RELAY	O	REC/PB head selection output for IC602
97	A-HALF	I	Deck A cassette detect
98	POWER	O	POWER ON/OFF signal output
99	SW-F-CHG	O	Super woofer mode signal output (Not used)
100	STK-MUTE	O	Power amp ON/OFF signal output

SECTION 8
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE)
  ↑
  Cabinets color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

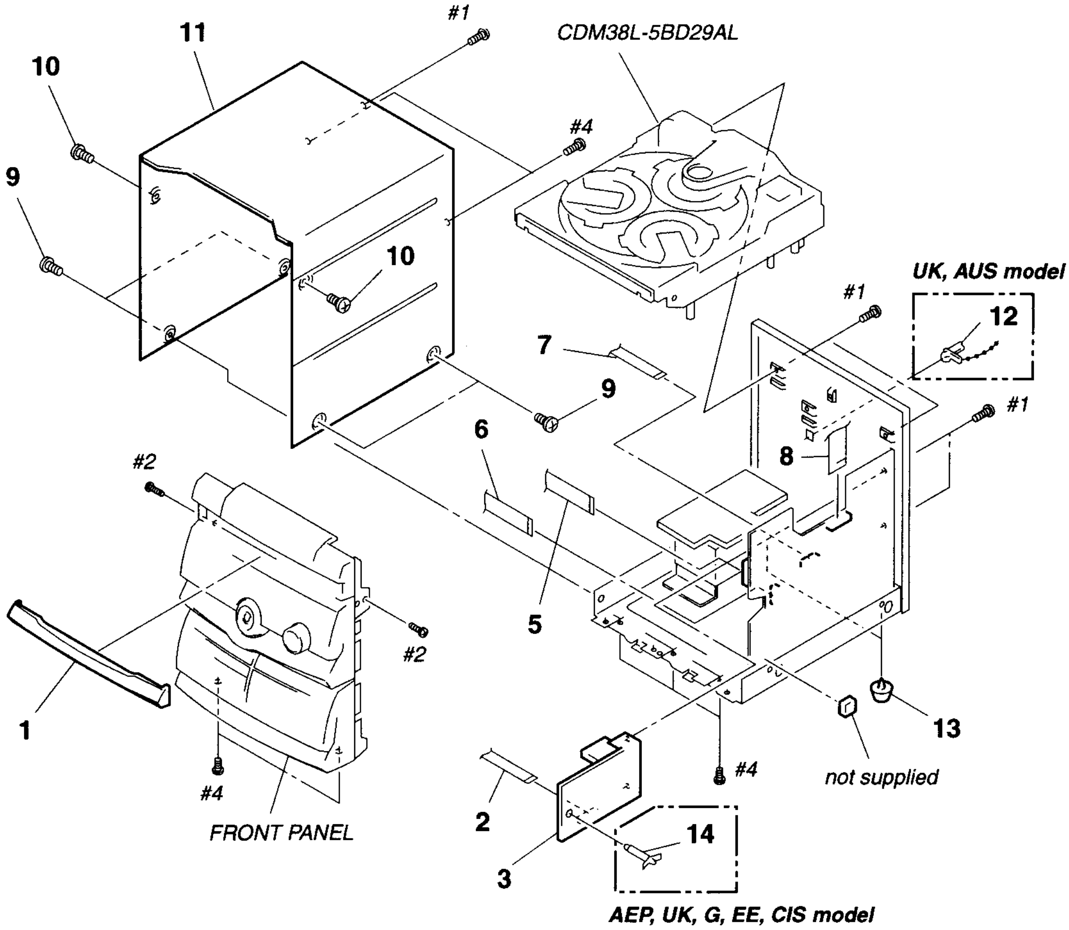
- Abbreviation

CND	: Canadian model
G	: German model.
EE	: East European model.
AUS	: Australian model.
EA	: Saudi Arabia model.
SP	: Singapore model.
JE	: Tourist model.
HK	: Hong Kong model.
IA	: Indonesia model.
MY	: Malaysia model.
TH	: Thailand model.
E2	: Without SW tuner E model.
E3	: With SW tuner E model.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

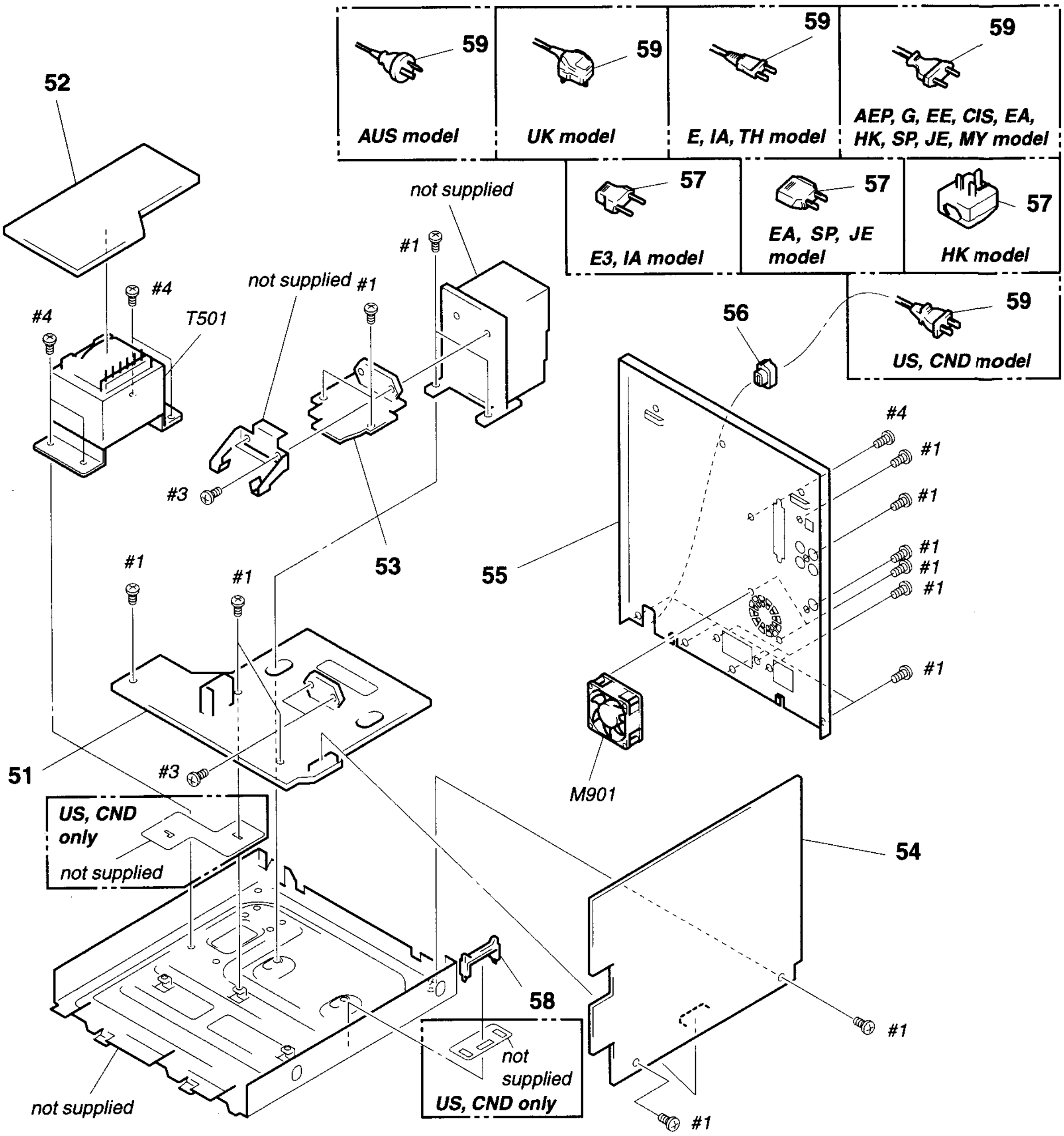
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

8-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	4-988-078-21	PANEL, LOADING (BLACK)(RX100AV)	
1	4-988-078-31	PANEL, LOADING (BLACK)(GR10AV)	
1	4-991-701-41	PANEL, LOADING (SILVER)(RX100AV)	
1	4-988-078-51	PANEL, LOADING (SILVER)(GR10AV)	
1	4-988-078-61	PANEL, LOADING (BLACK)(D90AV)	
2	1-751-086-11	WIRE (FLAT CABLE)(13 CORE) (US,CND,E2,TH,AUS)	
2	1-773-012-11	WIRE (FLAT CABLE) (15 CORE) (Except US,CND,E2,TH,AUS)	
3	1-233-544-11	ENCAPSULATED COMPONENT (US,CND)	
3	1-233-545-11	ENCAPSULATED COMPONENT (E2,AUS,TH)	
3	1-233-546-11	ENCAPSULATED COMPONENT (E3,EA,HK,SP,JE,MY,IA)	
3	A-4303-570-A	TCB BOARD (EE,CIS)	
3	A-4303-571-A	TCB BOARD (AEP,UK,G)	
5	1-773-158-11	WIRE (FLAT TYPE) (21 CORE)	
6	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
7	1-769-948-11	WIRE (FLAT TYPE) (11 CORE)	
8	1-777-870-11	WIRE (FLAT TYPE) (19 CORE)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	3-363-099-41	SCREW (CASE 3 TP2)	
* 11	4-986-851-01	CASE (BLACK)	
* 11	4-988-767-01	CASE (SILVER)	
12	4-956-370-12	BAND, PLUG FIXED (UK,AUS)	
13	4-965-822-01	FOOT	
14	4-924-098-91	HOLDER, PC BOARD (AEP,UK,G,EE,CIS)	

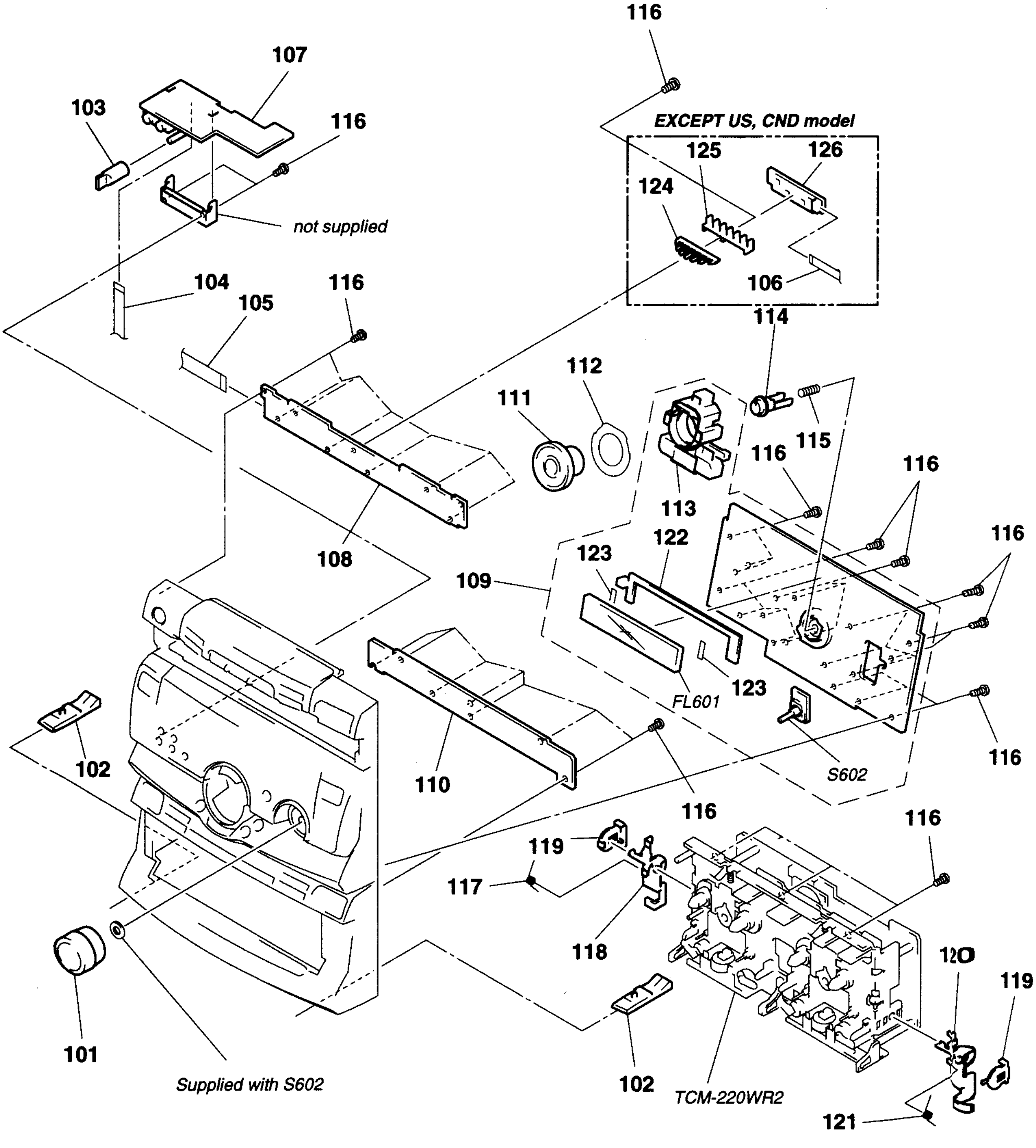
8-2. MAIN BOARD SECTION


59
AUS model
59
UK model
59
E, IA, TH model
59
AEP, G, EE, CIS, EA, HK, SP, JE, MY model
57
E3, IA model
57
EA, SP, JE model
57
HK model
59
US, CND model
52
not supplied
#1
not supplied
#1
#4
#4
T501
56
#3
53
55
#4
#1
#1
#1
#1
#1
#1
#1
#1
51
#3
M901
US, CND only
not supplied
54
58
not supplied
US, CND only
#1
not supplied
#1

Ref. No.	Part No.	Description	Remark
* 51	A-4392-655-A	POWER BOARD, COMPLETE (GR10AV)	
* 51	A-4392-656-A	POWER BOARD, COMPLETE (AEP,UK,G,EE,CIS)	
* 51	A-4392-657-A	POWER BOARD, COMPLETE (US,CND)	
* 52	1-663-994-11	TRANS BOARD	
* 53	A-4392-662-A	SURROUND BOARD, COMPLETE	(Except AEP,UK,G,EE,CIS)
* 53	A-4392-663-A	SURROUND BOARD, COMPLETE	(AEP,UK,G,EE,CIS)
* 54	A-4392-628-A	MAIN BOARD, COMPLETE (E2)	
* 54	A-4392-629-A	MAIN BOARD, COMPLETE (E3,HK,SP,JE,IA)	
* 54	A-4392-630-A	MAIN BOARD, COMPLETE (AEP,UK,G)	
* 54	A-4392-631-A	MAIN BOARD, COMPLETE (RX100AV:US,CND)	
* 54	A-4398-048-A	MAIN BOARD, COMPLETE (D90AV)	
* 54	A-4398-054-A	MAIN BOARD, COMPLETE (EE,CIS)	
* 54	A-4398-057-A	MAIN BOARD, COMPLETE (AUS)	
* 54	A-4398-310-A	MAIN BOARD, COMPLETE (TH)	
* 54	A-4398-876-A	MAIN BOARD, COMPLETE (EA)	
* 54	A-4398-882-A	MAIN BOARD, COMPLETE (MY)	
* 55	4-986-846-01	PANEL, BACK (RX100AV:US)	
* 55	4-986-846-11	PANEL, BACK (CND)	
* 55	4-986-846-21	PANEL, BACK (Indonesia product)(AEP,UK,G)	
* 55	4-986-846-31	PANEL, BACK (EE,CIS)	
* 55	4-986-846-41	PANEL, BACK (D90AV)	
* 55	4-988-023-01	PANEL, BACK (E3,IA)	
* 55	4-988-023-11	PANEL, BACK (E2)	
* 55	4-988-023-21	PANEL, BACK (SP)	
* 55	4-988-023-41	PANEL, BACK (HK)	
* 55	4-988-023-31	PANEL, BACK (JE)	
* 55	4-988-023-51	PANEL, BACK (AUS)	
* 55	4-988-023-71	PANEL, BACK (TH)	
* 55	4-988-275-01	PANEL, BACK (Malaysia product)(AEP)	
* 55	4-988-275-11	PANEL, BACK (EA)	
* 55	4-988-275-21	PANEL, BACK (MY)	
56	3-703-244-00	BUSHING (FBS001), CORD	(D90AV/GR10AV:EA,HK,SP,JE,MY,AUS/RX100AV)
56	3-703-571-11	BUSHING (S) (4516), CORD (TH)	
56	4-966-266-01	BUSHING (S) (FSB002), CORD (E,IA)	
⚠57	1-569-007-11	ADAPTOR, CONVERSION 2P (E3,IA)	
⚠57	1-569-008-11	ADAPTOR, CONVERSION 2P (EA,SP,JE)	
⚠57	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
* 58	4-988-533-01	HOLDER, PCB	
⚠59	1-558-943-41	CORD, POWER (E,IA)	
⚠59	1-575-042-21	CORD, POWER (US,CND)	
⚠59	1-575-651-21	CORD, POWER (AEP,G,EE,CIS,EA,HK,SP,JE,MY)	
⚠59	1-696-845-11	CORD, POWER (AUS)	
⚠59	1-751-326-21	CORD, POWER (TH)	
⚠59	1-751-529-11	CORD, POWER (UK)	
M901	1-698-792-11	FAN, DC	
⚠T501	1-431-136-11	TRANSFORMER, POWER (AEP,UK,G,EE,CIS)	
⚠T501	1-431-137-11	TRANSFORMER, POWER (US,CND)	
⚠T501	1-431-138-11	TRANSFORMER, POWER	(E,SP,JE,EA,HK,MY,AUS,IA)
⚠T501	1-431-138-21	TRANSFORMER, POWER (TH)	

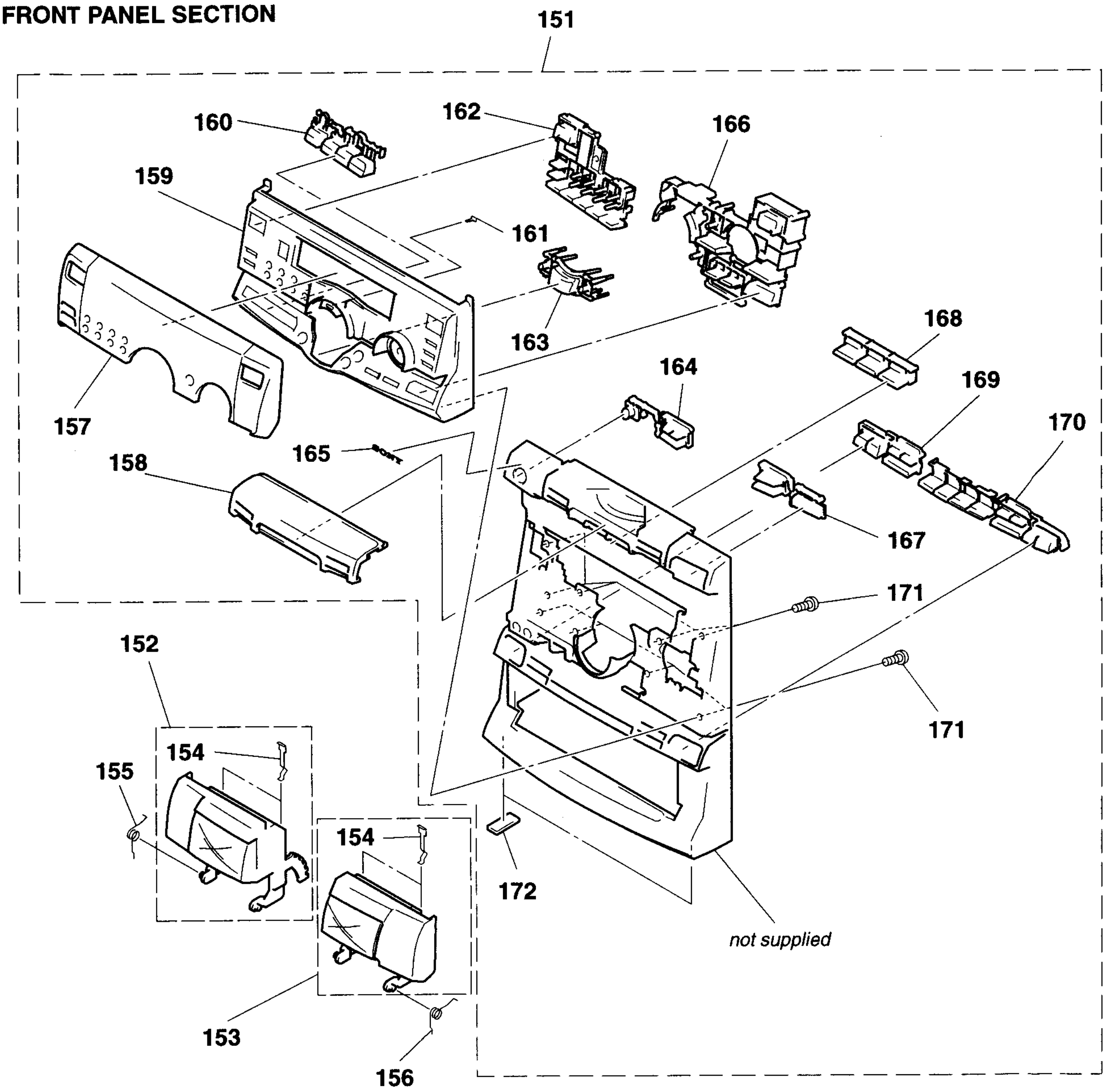
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

8-3. PANEL BOARD SECTION


116
107
103
116
EXCEPT US, CND model
125
126
124
not supplied
104
116
106
105
114
112
111
115
116
116
113
116
122
123
108
109
123
FL601
123
S602
116
102
110
116
116
119
117
118
120
119
101
Supplied with S602
102
TCM-220WR2
121

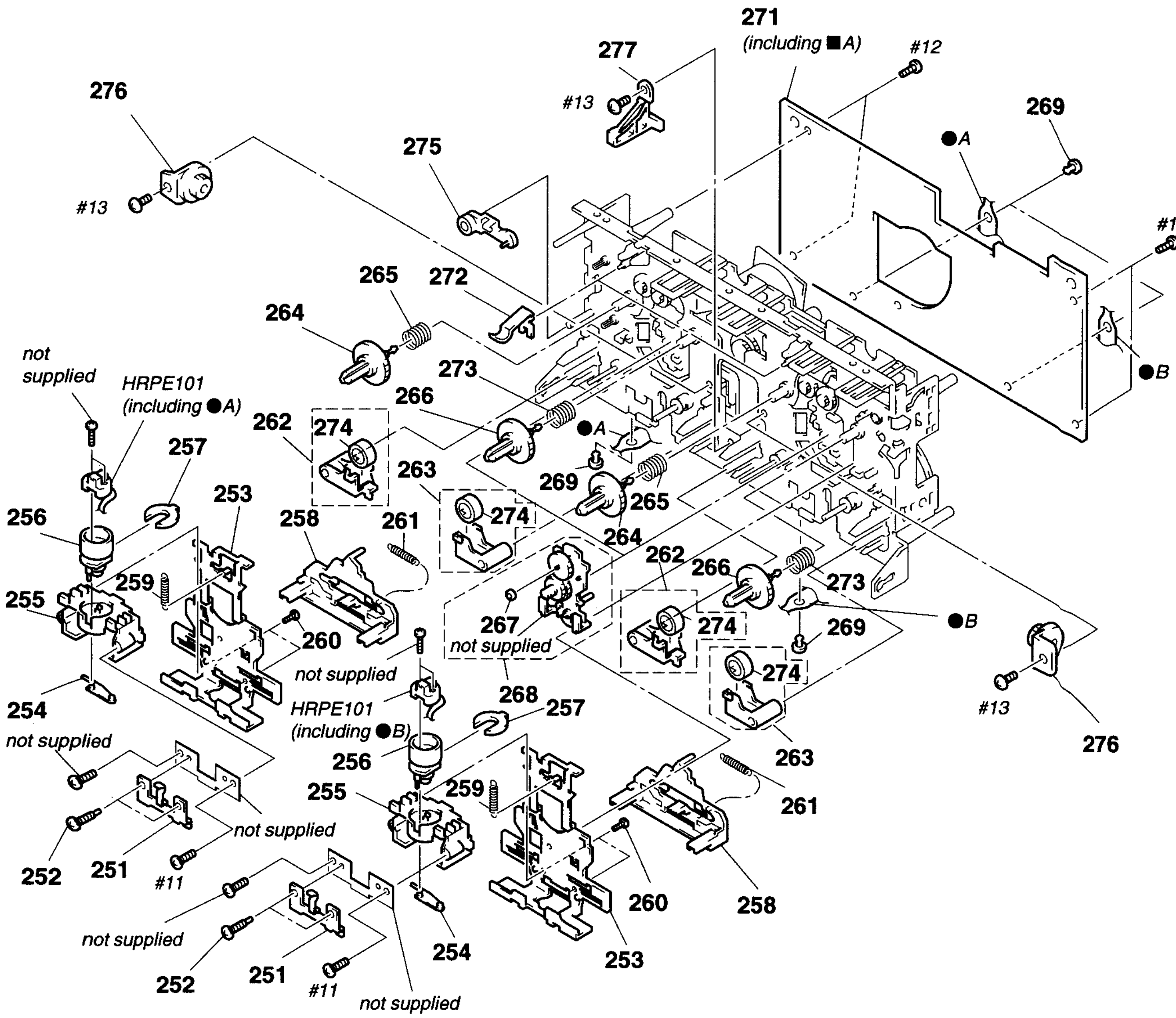
Ref. No.	Part No.	Description	Remark
101	4-986-877-11	KNOB (VOL) (BLACK)	
101	4-986-877-31	KNOB (VOL) (SILVER)	
102	4-986-843-11	BUTTON (EJECT) (BLACK)	
102	4-986-843-31	BUTTON (EJECT) (SILVER)	
103	4-986-893-11	KNOB (MICROPHONE) (BLACK)	
103	4-986-893-31	KNOB (MICROPHONE) (SILVER)	
104	1-769-909-11	WIRE (FLAT TYPE) (9 CORE)	
105	1-777-869-11	WIRE (FLAT TYPE) (10 CORE) (Except US,CND)	
105	1-777-871-11	WIRE (FLAT TYPE) (8 CORE) (US,CND)	
106	1-777-936-11	WIRE (FLAT TYPE) (5 CORE) (Except US,CND)	
* 107	A-4392-653-A	HP/MIC BOARD, COMPLETE	
* 108	A-4392-650-A	CD SW BOARD, COMPLETE (Except US,CND)	
* 108	A-4392-651-A	CD SW BOARD, COMPLETE (US,CND)	
* 109	A-4392-643-A	PANEL BOARD, COMPLETE (GR10AV,RX100AV:EE,CIS)	
* 109	A-4392-644-A	PANEL BOARD, COMPLETE (AEP,UK,G)	
* 109	A-4392-645-A	PANEL BOARD, COMPLETE (US,CND)	
* 110	A-4398-652-A	TC SW BOARD, COMPLETE	
111	X-4947-918-1	KNOB (JOG) ASSY (BLACK)	
111	X-4948-113-1	KNOB (JOG) ASSY (SILVER)	
112	4-986-881-11	JOG (PLATE)	
* 113	4-986-880-11	HOLDER (JOG)	
114	X-4947-919-1	BUTTON (E/N) ASSY (BLACK)	
114	X-4948-120-1	BUTTON (E/N) ASSY (SILVER)	
115	4-984-085-01	SPRING (ENTER), COMPRESSION	
116	4-951-620-01	SCREW (2.6X8), +BVTP	
117	4-990-130-11	SPRING (OPEN B)	
118	3-354-953-01	LEVER (LOCK LEVER L)	
119	3-354-957-01	JOINT (LOCK LEVER)	
120	3-354-954-01	LEVER (LOCK LEVER R)	
121	4-990-129-11	SPRING (OPEN A)	
* 122	4-986-870-11	HOLDER, FL TUBE	
* 123	4-932-810-11	CUSHION (FL)	
124	4-986-863-11	INDICATOR (CD) (Except US,CND)	
* 125	4-986-865-11	HOLDER (LED) (Except US,CND)	
* 126	1-664-007-11	DECO BOARD (Except US,CND)	
FL601	1-517-618-11	INDICATOR, TUBE FLUORESCENT	

8-4. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
151	X-4947-924-1	PANEL ASSY, FRONT (BLACK)(AEP,UK,G)	
151	X-4947-939-1	PANEL ASSY, FRONT (BLACK)(US,CND)	
151	X-4948-106-1	PANEL ASSY, FRONT (SILVER) (E3,EE,CIS,EA,HK,SP,JE,MY,AUS,IA,TH)	
151	X-4948-122-1	PANEL ASSY, FRONT (BLACK)(E2)	
151	X-4948-588-1	PANEL ASSY, FRONT (SILVER)(G)	
152	X-4947-922-1	LID (A) ASSY, CASSETTE (BLACK)	
152	X-4948-118-1	LID (A) ASSY, CASSETTE (SILVER)	
153	X-4947-923-1	LID (B) ASSY, CASSETTE (BLACK)	
153	X-4948-119-1	LID (B) ASSY, CASSETTE (SILVER)	
154	4-959-229-11	DETENT, CASSETTE	
155	4-989-903-11	SPRING (A DECK)	
156	4-989-904-11	SPRING (B DECK)	
157	4-986-869-41	WINDOW (STR) (BLACK)(Except AEP,UK,G)	
157	4-986-869-51	WINDOW (STR) (BLACK)(AEP,UK,G)	
157	4-986-869-81	WINDOW (STR) (SILVER)(Except AEP,UK,G)	
157	4-991-700-01	WINDOW (STR) (SILVER)(G)	
158	4-986-859-11	WINDOW (CD) (Except US,CND)	
158	4-986-859-41	WINDOW (CD) (US,CND)	
159	4-986-866-11	PANEL, SUB (BLACK)(US,CND)	
159	4-986-866-31	PANEL, SUB (SILVER)(Except US,CND)	
159	4-986-866-71	PANEL, SUB (BLACK)(Except US,CND)	
160	X-4947-925-1	BUTTON (DJ) ASSY (BLACK)	
160	X-4948-112-1	BUTTON (DJ) ASSY (SILVER)	
161	4-986-883-11	INDICATOR (JOG)	
162	4-986-872-21	BUTTON (TIMER) (BLACK)	
162	4-986-872-51	BUTTON (TIMER) (SILVER)	
163	4-986-897-11	BUTTON (BPM)	
164	4-986-860-11	BUTTON (POWER) (BLACK)	
164	4-986-860-31	BUTTON (POWER) (SILVER)	
165	4-962-708-21	EMBLEM (4-A), SONY	
166	X-4947-926-1	BUTTON (T/B) ASSY (BLACK)(AEP,UK,G)	
166	X-4947-940-1	BUTTON (T/B) ASSY (BLACK)(Except AEP,UK,G)	
166	X-4948-108-1	BUTTON (T/B) ASSY (SILVER) (Except AEP,UK,G)	
166	X-4948-597-1	BUTTON (T/B) ASSY (SILVER)(G)	
167	4-986-861-11	BUTTON (PLAY) (BLACK)	
167	4-986-861-31	BUTTON (PLAY) (SILVER)	
168	4-986-862-11	BUTTON (CD)	
169	4-986-901-11	BUTTON (A DECK) (BLACK)	
169	4-986-901-31	BUTTON (A DECK) (SILVER)	
170	4-986-902-11	BUTTON (B DECK) (BLACK)	
170	4-986-902-31	BUTTON (B DECK) (SILVER)	
171	4-951-620-01	SCREW (2.6X8), +BVTP	
172	4-930-336-61	FOOT (FELT)	

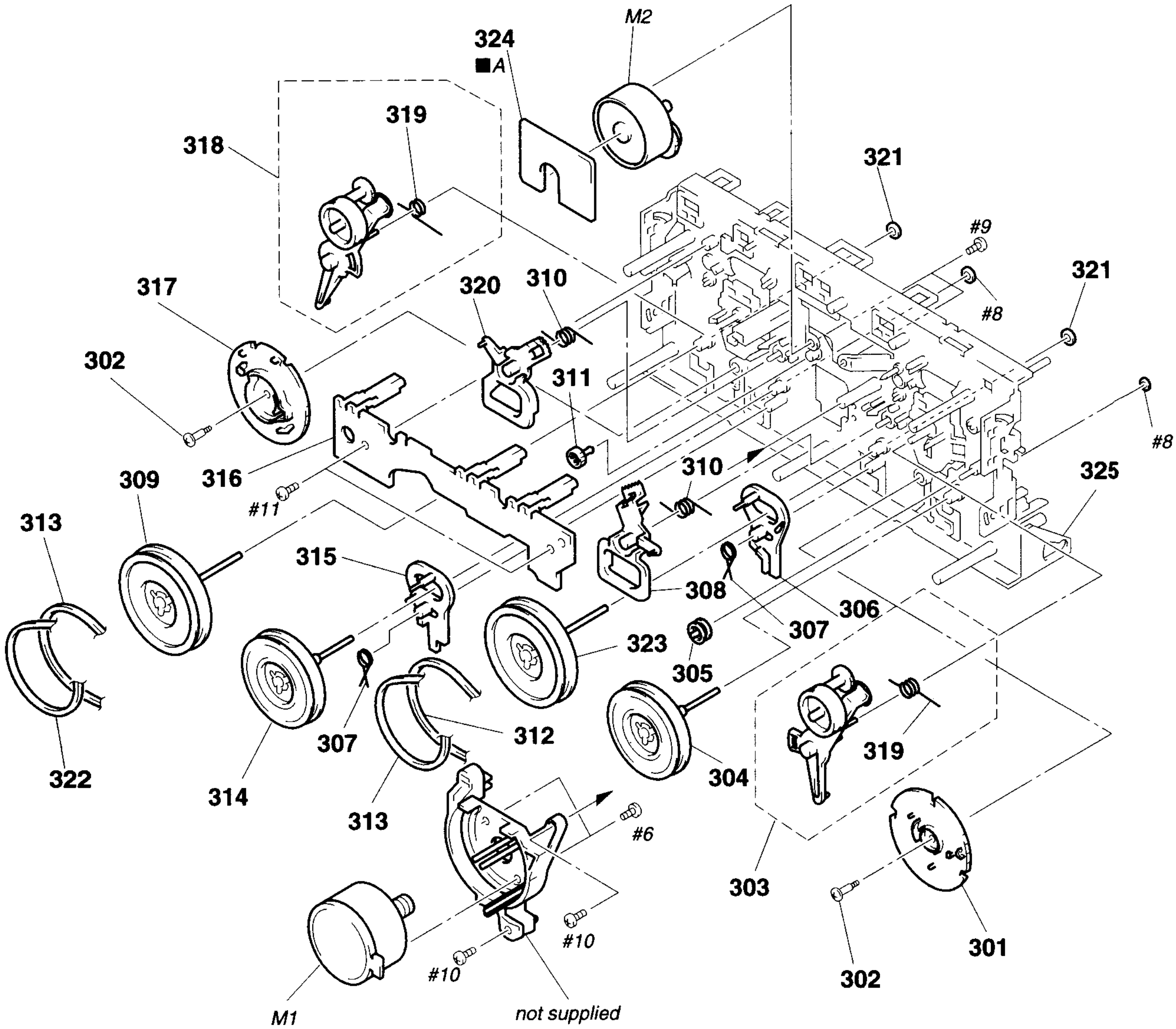
8-5. TC MECHANISM SECTION 1 (TCM-220WR2)


271
(including ■A)
277
#12
276
#13
275
269
●A
#12
265
272
264
●B
not supplied
HRPE101
(including ●A)
273
262
274
266
257
263
●A
253
269
265
256
258
261
274
264
262
266
273
255
259
267
not supplied
274
269
●B
260
not supplied
274
268
254
HRPE101
(including ●B)
257
#13
not supplied
256
263
276
255
259
261
not supplied
252
251
#11
260
258
not supplied
254
253
252
251
#11
not supplied

Ref. No.	Part No.	Description	Remark
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT	
* 253	X-3373-113-1	SLIDER (HEAD) ASSY	
254	3-908-556-01	SPRING, HEAD TOGGLE	
255	3-908-558-02	FITTING BLOCK, HEAD	
256	3-908-557-02	ROTARY BLOCK, HEAD	
* 257	3-908-559-01	STOPPER, AZIMUTH	
258	3-908-555-01	SLIDER (REV SLIDER)	
259	3-917-143-11	SPRING, TENSION	
260	3-388-848-01	SCREW (P2X6)(B TIGHT)	
261	3-939-371-01	SPRING (1), TENSION	
262	X-3369-909-1	PINCH LEVER (REV) ASSY	
263	X-3369-908-1	PINCH LEVER (FWD) ASSY	
264	3-908-613-01	GEAR (S), REEL	
265	3-917-141-01	SPRING, COMPRESSION	
266	X-3371-305-1	REEL (T) ASSY	
267	3-669-465-01	WASHER (1.5), STOPPER	
268	X-3370-173-1	TU ASSY	
269	3-939-862-01	CLIP	
* 271	A-2007-131-A	AUDIO BOARD, COMPLETE	
272	3-930-972-01	DETENT, HALF	
273	3-917-142-01	SPRING, COMPRESSION	
274	3-355-808-02	PINCH ROLLER	
275	3-938-863-01	STOPPER	
276	3-354-963-01	DAMPER	
* 277	4-980-439-01	FULCRUM, HOLDER	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	

8-6. TC MECHANISM SECTION 2 (TCM-220WR2)

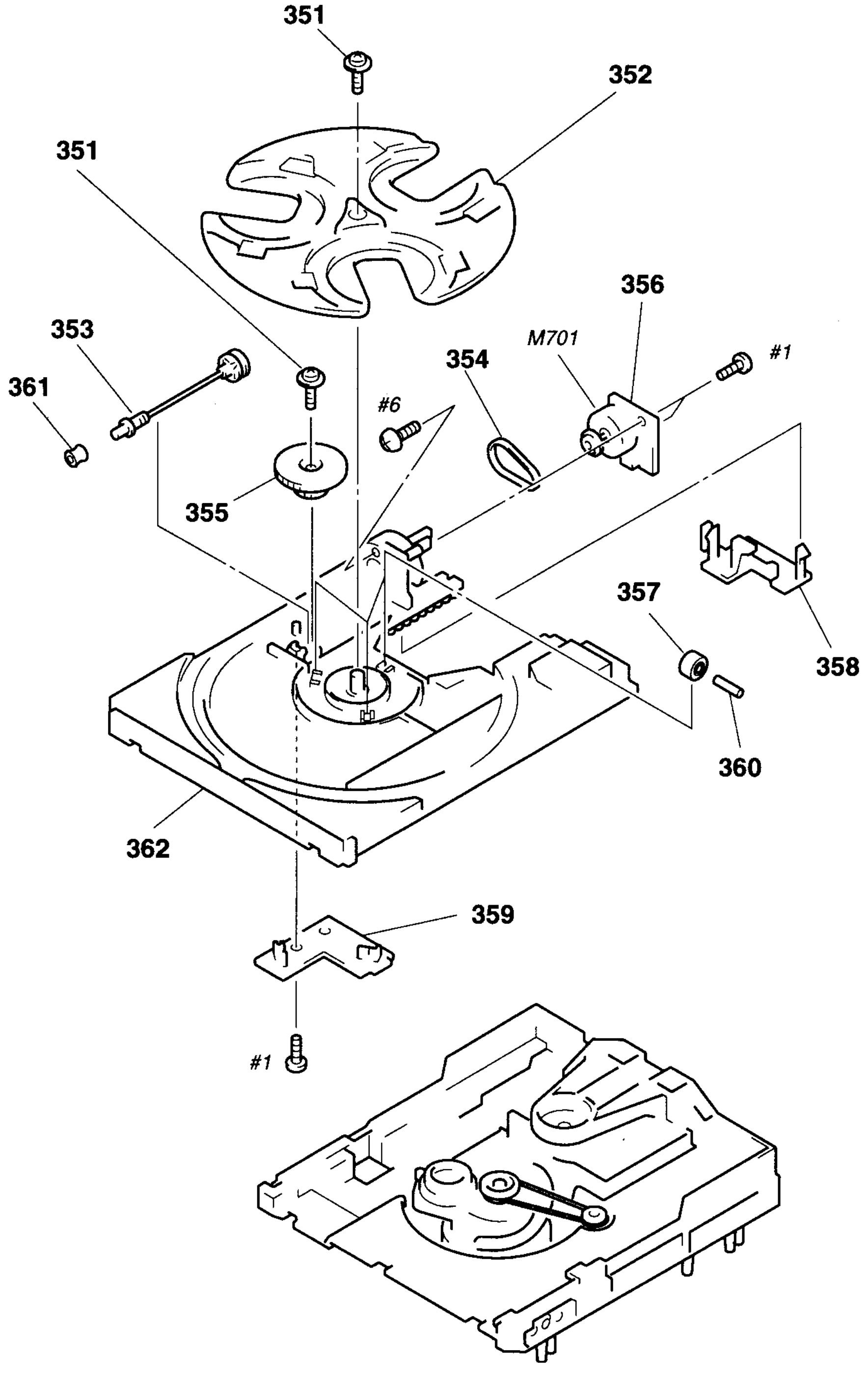
■A: MOTOR board (Suppplied with AUDIO board)


M2
324
■A
319
318
321
#9
#8
321
317
320
310
302
311
#8
325
309
316
#11
310
313
315
308
306
307
323
305
322
307
312
319
314
313
304
303
#6
301
#10
#10
302
M1
not supplied

Ref. No.	Part No.	Description	Remark
301	3-908-597-01	CAM (A)	
302	3-908-608-11	SCREW, STEP	
303	X-3372-930-1	ARM (A) ASSY, FR	
304	X-3370-169-1	FLYWHEEL (AR) ASSY	
305	3-928-047-01	PULLEY, TENSION	
306	3-908-599-01	LEVER (REV-A)	
307	3-908-601-01	SPRING (REV LEVER), TORSION	
308	3-908-603-01	LEVER (TRIGGER A)	
309	X-3370-170-1	FLYWHEEL (BF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION	
311	3-908-609-01	GEAR, TRIGGER	
312	3-913-845-11	BELT (A)	
313	3-913-846-11	BELT (FR)	
314	X-3370-171-1	FLYWHEEL (BR) ASSY	

Ref. No.	Part No.	Description	Remark
315	3-908-600-01	LEVER (REV-B)	
* 316	1-650-669-11	LEAF SWITCH BOARD	
317	3-908-598-01	CAM (B)	
318	X-3372-931-1	ARM (B) ASSY, FR	
319	3-911-114-01	SPRING (FR), TORSION	
320	3-908-604-01	LEVER (TRIGGER B)	
321	3-911-115-01	WASHER, STOPPER	
322	3-917-176-11	BELT (B)	
323	X-3370-172-1	FLYWHEEL (AF) ASSY	
* 324	A-2007-131-A	AUDIO BOARD, COMPLETE	
325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	

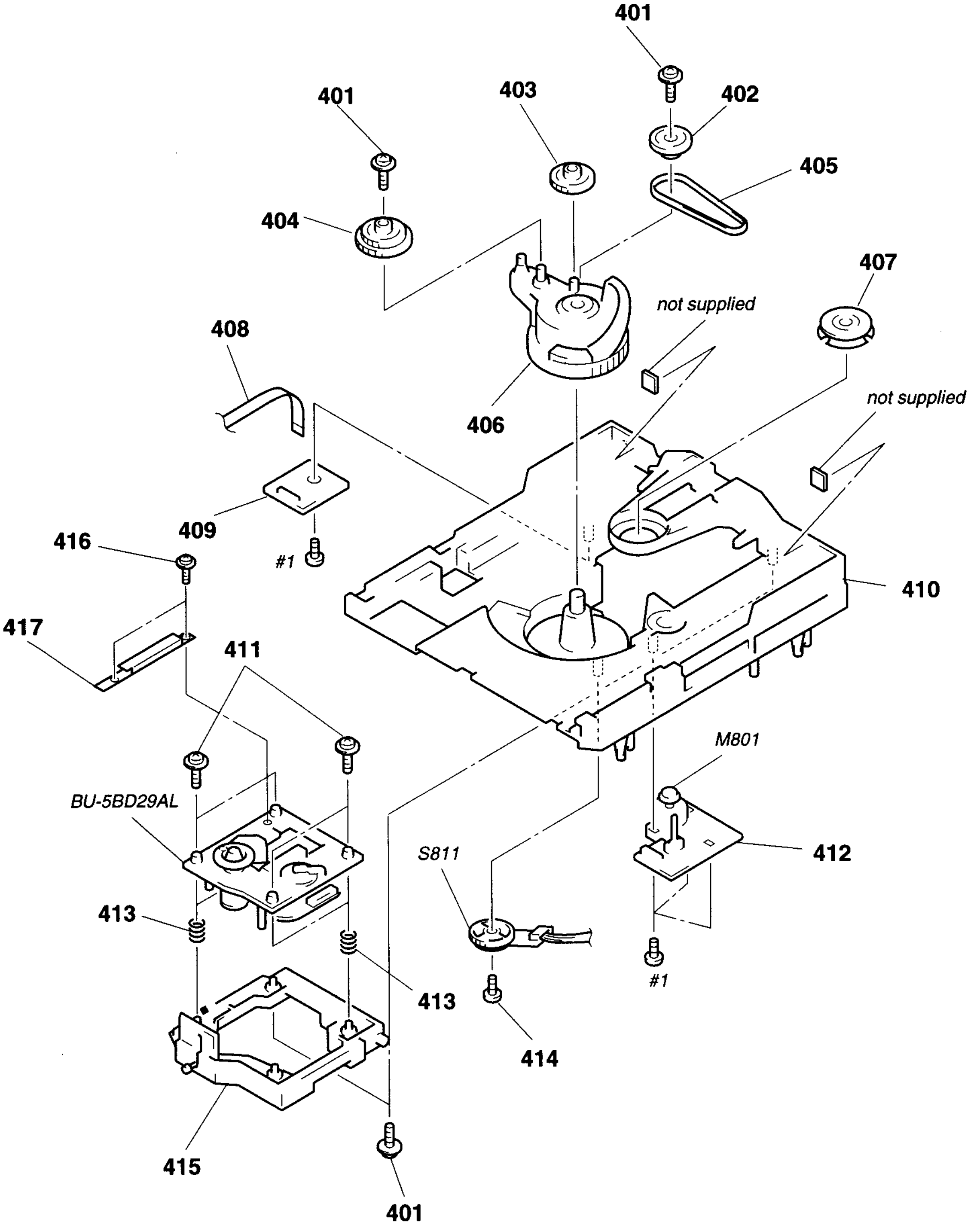
8-7. CD MECHANISM SECTION 1 (CDM38L-5BD29AL)


351
352
351
356
353
M701
354
#1
361
#6
355
357
358
360
362
359
#1

Ref. No.	Part No.	Description	Remark
351	4-917-583-21	BRACKET, YOKE	
352	4-977-945-01	TRAY (TURN)	
353	X-4946-665-1	SHAFT ASSY, WORM	
354	4-977-943-01	BELT (TURN) (1.2)	
355	4-977-956-01	WHEEL, WORM	
* 356	1-658-577-11	MOTOR (TURN) BOARD	
357	X-4924-457-1	ROLLER ASSY	

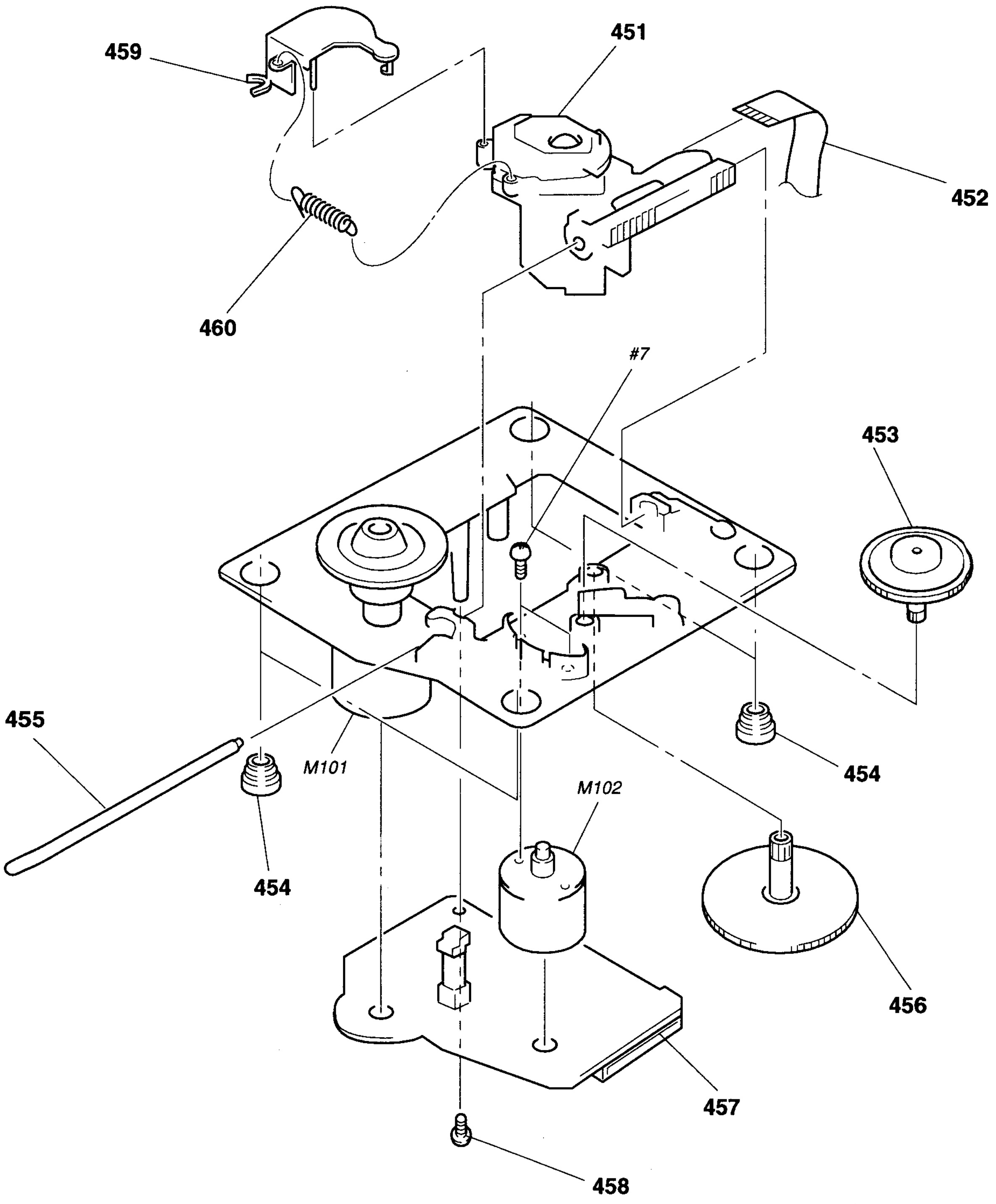
Ref. No.	Part No.	Description	Remark
358	4-977-941-01	BEARING (WORM)	
* 359	1-658-576-11	SENSOR BOARD	
360	4-934-376-01	SHAFT (ROLLER)	
361	4-981-187-01	COLLAR (WORM)	
362	4-977-944-01	TRAY (SLIDE)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

8-8. CD MECHANISM SECTION 2 (CDM38L-5BD29AL)


401
401
403
402
405
404
407
not supplied
408
not supplied
406
409
416
#1
410
417
411
M801
BU-5BD29AL
S811
412
413
413
#1
414
415
401

Ref. No.	Part No.	Description	Remark
401	4-917-583-71	BRACKET, YOKE	
402	4-977-954-01	PULLEY (SL)	
403	4-977-953-01	GEAR (SL-A)	
404	4-977-955-01	GEAR (SL-B)	
405	4-977-942-01	BELT (SL) (1.4)	
406	X-4946-667-1	CAM ASSY, BU	
407	1-452-538-11	MAGNET	
408	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 409	1-658-575-11	CONNECTOR BOARD	
* 410	X-4946-668-1	CHASSIS (CDM) ASSY	
411	4-985-672-01	SCREW (+PTPWH M2.6X6), FLOATING	
* 412	1-658-578-11	MOTOR (SLIDE) BOARD	
413	4-958-593-01	SPRING (BU), COMPRESSION	
414	4-951-620-41	SCREW (2.6), +BVTP	
* 415	X-4946-666-1	HOLDER (BU) ASSY	
416	4-985-672-01	SCREW (SLIDER), STEP	
417	4-989-492-01	SLIDER (38)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	

8-9. BASE UNIT SECTION (BU-5BD29AL)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠451	8-820-020-01	OPTICAL PICK-UP BLOCK KSS-213D/Q-NP	
452	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
453	4-912-567-21	GEAR (M)	
454	4-951-940-01	INSULATOR (BU)	
455	4-917-565-01	SHAFT, SLED	
456	4-917-564-01	GEAR (P), FLATNESS	
* 457	A-4699-522-A	BD BOARD, COMPLETE	
458	4-951-620-01	SCREW (2.6X8), +BVTP	
459	4-989-491-01	COVER, LENS	
460	4-989-819-02	SPRING, TENSION	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

SECTION 9
ELECTRICAL PARTS LIST

Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
  uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  CND : Canadian model
  G : German model.
  EE : East European model.
  AUS : Australian model.
  EA : Saudi Arabia model.
  SP : Singapore model.
  JE : Tourist model.
  HK : Hong Kong model.
  IA : Indonesia model.
  MY : Malaysia model.
  TH : Thailand model.
  E2 : Without SW tuner E model.
  E3 : With SW tuner E model.

Ref. No.	Part No.	Description			Remark	
*	A-2007-131-A	AUDIO BOARD, COMPLETE				
		**********************				
		(including MOTOR board)				
		< CAPACITOR >				
C301	1-162-289-31	CERAMIC	390PF	10%	50V	
C302	1-126-968-11	ELECT	100uF	20%	6.3V	
C303	1-162-282-31	CERAMIC	100PF	10%	50V	
C304	1-130-483-00	MYLAR	0.01uF	5%	50V	
C305	1-107-715-11	ELECT	22uF	20%	16V	
C311	1-162-289-31	CERAMIC	390PF	10%	50V	
C313	1-162-282-31	CERAMIC	100PF	10%	50V	
C314	1-130-487-00	MYLAR	0.022uF	5%	50V	
C315	1-126-233-11	ELECT	22uF	20%	50V	
C331	1-137-427-11	FILM	120PF	5%	50V	
C332	1-162-288-31	CERAMIC	330PF	10%	50V	
C333	1-162-209-31	CERAMIC	27PF	5%	50V	
C401	1-162-289-31	CERAMIC	390PF	10%	50V	
C402	1-126-968-11	ELECT	100uF	20%	6.3V	
C403	1-162-282-31	CERAMIC	100PF	10%	50V	
C404	1-130-483-00	MYLAR	0.01uF	5%	50V	
C405	1-107-715-11	ELECT	22uF	20%	16V	
C411	1-162-289-31	CERAMIC	390PF	10%	50V	
C413	1-162-282-31	CERAMIC	100PF	10%	50V	
C414	1-130-487-00	MYLAR	0.022uF	5%	50V	
C415	1-126-233-11	ELECT	22uF	20%	50V	
C431	1-137-427-11	FILM	120PF	5%	50V	
C432	1-162-288-31	CERAMIC	330PF	10%	50V	
C433	1-162-209-31	CERAMIC	27PF	5%	50V	
C601	1-104-396-11	ELECT	10uF	20%	16V	
C602	1-104-396-11	ELECT	10uF	20%	16V	
C611	1-124-907-11	ELECT	10uF	20%	50V	
C612	1-124-907-11	ELECT	10uF	20%	50V	
C621	1-137-150-11	FILM	0.01uF	5%	100V	
C622	1-126-961-11	ELECT	2.2uF	20%	50V	
C623	1-136-155-00	FILM	0.015uF	5%	50V	
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C627	1-124-903-11	ELECT	1uF	20%	50V	
C628	1-136-153-00	FILM	0.01uF	5%	50V	
C642	1-104-664-11	ELECT	47uF	20%	16V	
C651	1-161-494-00	CERAMIC	0.022uF		25V	
		< CONNECTOR >				
CN601	1-695-382-31	PIN, CONNECTOR (PC BOARD) 21P				
CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P				
* CN651	1-564-521-11	PLUG, CONNECTOR 6P				
		< IC >				
IC601	8-759-111-44	IC uPC4570C-1				
IC602	8-759-143-54	IC uPC1330HA				
IC611	8-759-111-44	IC uPC4570C-1				
		< COIL >				
L331	1-410-780-11	INDUCTOR 27mH				
L431	1-410-780-11	INDUCTOR 27mH				
		< MOTOR >				
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)				
		< TRANSISTOR >				
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK				
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK				
Q623	8-729-801-93	TRANSISTOR 2SD1387				
Q651	8-729-900-65	TRANSISTOR DTA144ES				
		< RESISTOR >				
R301	1-247-881-00	CARBON	120K	5%	1/4W	
R302	1-249-409-11	CARBON	220	5%	1/4W	F
R303	1-249-433-11	CARBON	22K	5%	1/4W	
R304	1-247-889-00	CARBON	270K	5%	1/4W	
R305	1-247-858-11	CARBON	13K	5%	1/4W	
R311	1-247-881-00	CARBON	120K	5%	1/4W	
R312	1-247-807-31	CARBON	100	5%	1/4W	
R314	1-247-882-11	CARBON	130K	5%	1/4W	
R315	1-247-850-11	CARBON	6.2K	5%	1/4W	
R331	1-249-430-11	CARBON	12K	5%	1/4W	
R401	1-247-881-00	CARBON	120K	5%	1/4W	
R402	1-249-409-11	CARBON	220	5%	1/4W	F
R403	1-249-433-11	CARBON	22K	5%	1/4W	
R404	1-247-889-00	CARBON	270K	5%	1/4W	
R405	1-247-858-11	CARBON	13K	5%	1/4W	
R411	1-247-881-00	CARBON	120K	5%	1/4W	
R412	1-247-807-31	CARBON	100	5%	1/4W	

Ref. No.	Part No.	Description			Remark
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W F
R602	1-249-409-11	CARBON	220	5%	1/4W F
R608	1-249-409-11	CARBON	220	5%	1/4W F
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W F
R612	1-249-409-11	CARBON	220	5%	1/4W F
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-247-856-00	CARBON	11K	5%	1/4W
R652	1-247-856-00	CARBON	11K	5%	1/4W
R653	1-249-441-11	CARBON	100K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-238-551-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-238-551-11	RES, ADJ, CARBON 220K			
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K			
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
***					
*	A-4699-522-A	BD BOARD, COMPLETE ******************			
		< CAPACITOR >			
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V
C102	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C107	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C112	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C113	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C118	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C120	1-124-779-00	ELECT CHIP	10uF	20%	16V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C131	1-164-346-11	CERAMIC CHIP	1uF		16V
C140	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C161	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C162	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C163	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C164	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C165	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C166	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C167	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C168	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C169	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C170	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C171	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C173	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C174	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C175	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C176	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C177	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C178	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C179	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C181	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C182	1-126-393-11	ELECT	33uF	20%	10V
C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C185	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C188	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C189	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P			
CNU102	1-778-874-11	CONNECTOR,FFC(LIF(NON-ZIF))19P			
		< FERRITE BEAD >			
FB101	1-414-234-11	INDUCTOR, FERRITE BEAD			
FB103	1-414-234-11	INDUCTOR, FERRITE BEAD			
		< IC >			
IC101	8-752-080-62	IC CXA1992AR			
IC102	8-759-429-32	IC BA5941FP-E2			
IC103	8-752-378-66	IC CXD2519Q			
		< JUMPER RESISTOR >			
JW101	1-216-295-91	CONDUCTOR, CHIP (2012)			
JW104	1-216-295-91	CONDUCTOR, CHIP (2012)			
		< MOTOR >			
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)			
M102	X-4917-504-1	MOTOR ASSY (SLED)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR >			
R102	1-216-001-00	METAL CHIP	10	5%	1/10W
R104	1-216-093-00	METAL CHIP	68K	5%	1/10W
R105	1-216-088-00	METAL CHIP	43K	5%	1/10W
R106	1-216-088-00	METAL CHIP	43K	5%	1/10W
R107	1-216-088-00	METAL CHIP	43K	5%	1/10W
R108	1-216-088-00	METAL CHIP	43K	5%	1/10W
R109	1-216-093-00	METAL CHIP	68K	5%	1/10W
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R118	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R119	1-216-085-00	METAL CHIP	33K	5%	1/10W
R120	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R121	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R122	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R123	1-216-099-00	METAL CHIP	120K	5%	1/10W
R124	1-216-091-00	METAL CHIP	56K	5%	1/10W
R125	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R126	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R127	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R128	1-216-098-00	METAL CHIP	110K	5%	1/10W
R129	1-216-025-91	METAL GLAZE	100	5%	1/10W
R130	1-216-079-00	METAL CHIP	18K	5%	1/10W
R131	1-216-079-00	METAL CHIP	18K	5%	1/10W
R132	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R133	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R134	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R135	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W
R137	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R138	1-216-025-91	METAL GLAZE	100	5%	1/10W
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W
R157	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R158	1-216-001-00	METAL CHIP	10	5%	1/10W
R159	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R161	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R162	1-216-073-00	METAL CHIP	10K	5%	1/10W
R163	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R164	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R165	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R166	1-216-073-00	METAL CHIP	10K	5%	1/10W
R167	1-216-081-00	METAL CHIP	22K	5%	1/10W
R168	1-216-073-00	METAL CHIP	10K	5%	1/10W
R169	1-216-079-00	METAL CHIP	18K	5%	1/10W
R170	1-216-081-00	METAL CHIP	22K	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R172	1-216-079-00	METAL CHIP	18K	5%	1/10W
R173	1-216-025-91	METAL GLAZE	100	5%	1/10W
R174	1-216-033-00	METAL CHIP	220	5%	1/10W
R175	1-216-025-91	METAL GLAZE	100	5%	1/10W
R176	1-216-025-91	METAL GLAZE	100	5%	1/10W
R177	1-216-025-91	METAL GLAZE	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R178	1-216-025-91	METAL GLAZE	100	5%	1/10W
R179	1-216-025-91	METAL GLAZE	100	5%	1/10W
R180	1-216-025-91	METAL GLAZE	100	5%	1/10W
R181	1-216-025-91	METAL GLAZE	100	5%	1/10W
R188	1-216-037-00	METAL CHIP	330	5%	1/10W
R190	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R191	1-216-105-91	METAL GLAZE	220K	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			

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Ref. No.	Part No.	Description			Remark	
*	A-4392-650-A	CD SW BOARD, COMPLETE (Except US,CND) **********************				
*	A-4392-651-A	CD SW BOARD, COMPLETE (US,CND) **********************				
		< CONNECTOR >				
* CN602	1-568-824-11	SOCKET, CONNECTOR 5P (GR10AV/RX100AV:AEP,UK,G,EE,CIS)				
CN606	1-568-853-11	SOCKET, CONNECTOR 10P (GR10AV/RX100AV:AEP,UK,G,EE,CIS)				
* CN606	1-568-851-11	SOCKET, CONNECTOR 8P (D90AV/RX100AV:US,CND)				
		< DIODE >				
D626	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)				
D627	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)				
D628	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)				
D629	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)				
D630	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)				
D631	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)				
D632	8-719-058-03	DIODE SEL5423E-TP15 (▷)				
D633	8-719-063-91	DIODE SLR325DC-P-T32 (▯▯)				
		< TRANSISTOR >				
Q612	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q613	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q614	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q616	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R709	1-249-401-11	CARBON	47	5%	1/4W	F
R710	1-249-413-11	CARBON	470	5%	1/4W	F
R711	1-247-815-91	CARBON	220	5%	1/4W	
R712	1-249-411-11	CARBON	330	5%	1/4W	
R713	1-249-413-11	CARBON	470	5%	1/4W	F
R714	1-249-415-11	CARBON	680	5%	1/4W	F
R715	1-249-417-11	CARBON	1K	5%	1/4W	F
R716	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R717	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R718	1-247-804-11	CARBON	75	5%	1/4W	
R719	1-247-804-11	CARBON	75	5%	1/4W	
R720	1-247-804-11	CARBON	75	5%	1/4W	

Ref. No.	Part No.	Description			Remark	
R721	1-247-804-11	CARBON	75	5%	1/4W	
R722	1-247-804-11	CARBON	75	5%	1/4W	
R723	1-247-804-11	CARBON	75	5%	1/4W	
R724	1-247-807-31	CARBON	100	5%	1/4W	
R725	1-247-807-31	CARBON	100	5%	1/4W	
R791	1-247-804-11	CARBON	75	5%	1/4W	
R792	1-247-804-11	CARBON	75	5%	1/4W	
R793	1-247-804-11	CARBON	75	5%	1/4W	
R794	1-247-804-11	CARBON	75	5%	1/4W	
R795	1-247-804-11	CARBON	75	5%	1/4W	
R796	1-247-804-11	CARBON	75	5%	1/4W	
		< SWITCH >				
S645	1-762-196-21	SWITCH, TACT (POWER)				
S646	1-762-196-21	SWITCH, TACT (◀◀)				
S647	1-762-196-21	SWITCH, TACT (▶▶)				
S648	1-762-196-21	SWITCH, TACT (DISC SKIP EX-CHANGE)				
S649	1-762-196-21	SWITCH, TACT (DISC 1)				
S650	1-762-196-21	SWITCH, TACT (DISC 2)				
S651	1-762-196-21	SWITCH, TACT (DISC 3)				
S652	1-762-196-21	SWITCH, TACT (■)				
S653	1-762-196-21	SWITCH, TACT (⏏ OPN/CLOSE)				
S654	1-762-196-21	SWITCH, TACT (▷II)				

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Ref. No.	Part No.	Description			Remark	
*	1-658-575-11	CONNECTOR BOARD				
		*****************				
		< CONNECTOR >				
* CN701	1-568-946-11	PIN, CONNECTOR 8P				
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P				
		< TRANSISTOR >				
Q701	8-729-900-80	TRANSISTOR DTC114ES				
		< RESISTOR >				
R703	1-249-435-11	CARBON	33K	5%	1/4W	
R704	1-249-429-11	CARBON	10K	5%	1/4W	
R705	1-249-417-11	CARBON	1K	5%	1/4W	F

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Ref. No.	Part No.	Description			Remark	
*	1-664-007-11	DECO BOARD				
		***********				
		(GR10AV/RX100AV:AEP,UK,G,EE,CIS)				
		< CONNECTOR >				
* CN605	1-568-848-11	SOCKET, CONNECTOR 5P				
		< DIODE >				
D619	8-719-058-04	DIODE SEL5223S-TP15 (RIGHT)				
D620	8-719-058-04	DIODE SEL5223S-TP15 (RIGHT)				
D621	8-719-058-04	DIODE SEL5223S-TP15 (CENTER)				
D622	8-719-058-03	DIODE SEL5423E-TP15 (CENTER)				
D623	8-719-058-04	DIODE SEL5223S-TP15 (CENTER)				
D624	8-719-058-04	DIODE SEL5223S-TP15 (LEFT)				
D625	8-719-058-04	DIODE SEL5223S-TP15 (LEFT)				

Ref. No.	Part No.	Description			Remark	
		< TRANSISTOR >				
Q610	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q611	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R706	1-247-807-31	CARBON	100	5%	1/4W	
R707	1-247-807-31	CARBON	100	5%	1/4W	
R708	1-247-807-31	CARBON	100	5%	1/4W	
R746	1-247-807-31	CARBON	100	5%	1/4W	

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Ref. No.	Part No.	Description			Remark	
*	A-4392-653-A	HP/MIC BOARD, COMPLETE				
		**********************				
		< CAPACITOR >				
C750	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C752	1-164-159-21	CERAMIC	0.1uF		50V	
C753	1-164-159-21	CERAMIC	0.1uF		50V	
C754	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C755	1-124-257-00	ELECT	2.2uF	20%	50V	
C756	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C757	1-162-215-31	CERAMIC	47PF	5%	50V	
C758	1-124-261-00	ELECT	10uF	20%	50V	
C759	1-124-465-00	ELECT	0.47uF	20%	50V	
C760	1-162-215-31	CERAMIC	47PF	5%	50V	
C761	1-162-282-31	CERAMIC	100PF	10%	50V	
C762	1-124-257-00	ELECT	2.2uF	20%	50V	
C764	1-124-261-00	ELECT	10uF	20%	50V	
C782	1-162-290-31	CERAMIC	470PF	10%	50V	
		< CONNECTOR >				
* CN750	1-568-828-11	SOCKET, CONNECTOR 9P				
		< IC >				
IC750	8-759-634-51	IC M5218AP				
		< JACK >				
J750	1-569-112-21	JACK, LARGE TYPE (PHONES)				
J751	1-569-112-21	JACK, LARGE TYPE (MIX MIC)				
		< RESISTOR >				
R750	1-249-429-11	CARBON	10K	5%	1/4W	
R751	1-249-417-11	CARBON	1K	5%	1/4W	F
R752	1-249-441-11	CARBON	100K	5%	1/4W	
R753	1-249-417-11	CARBON	1K	5%	1/4W	F
R754	1-247-863-91	CARBON	22K	5%	1/4W	
R755	1-249-429-11	CARBON	10K	5%	1/4W	
R756	1-247-885-00	CARBON	180K	5%	1/4W	
R757	1-247-807-31	CARBON	100	5%	1/4W	
		< VARIABLE RESISTOR >				
RV750	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)				

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LEAF SWITCH

MAIN

Ref. No.	Part No.	Description			Remark
*	1-650-669-11	LEAF SWITCH BOARD *****************			
		< CONNECTOR >			
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P			
		< TRANSISTOR >			
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H2			
Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H2			
		< RESISTOR >			
R1001	1-247-818-11	CARBON	300	5%	1/4W
R1002	1-247-820-11	CARBON	360	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
		< SWITCH >			
S1001	1-692-832-11	SWITCH, PUSH (1 KEY)(A PLAY)			
S1002	1-692-832-11	SWITCH, PUSH (1 KEY)(B PLAY)			
S1003	1-572-248-11	SWITCH, LEAF (A HALF)			
S1004	1-571-281-21	SWITCH, LEAF (A CrO2)			
S1005	1-571-281-21	SWITCH, LEAF (REC A)			
S1006	1-572-248-11	SWITCH, LEAF (B HALF)			
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)			
S1009	1-571-281-21	SWITCH, LEAF (REC B)			

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Ref. No.	Part No.	Description
*	A-4392-628-A	MAIN BOARD, COMPLETE (GR10AV:E2) *********************************
*	A-4392-629-A	MAIN BOARD, COMPLETE ******************** (GR10AV:E3,SP,JE,HK,IA)
*	A-4392-630-A	MAIN BOARD, COMPLETE (RX100AV:AEP,UK,G) ***************************************
*	A-4392-631-A	MAIN BOARD, COMPLETE (RX100AV:US,CND) ***************************************
*	A-4398-048-A	MAIN BOARD, COMPLETE (D90AV) ******************************
*	A-4398-054-A	MAIN BOARD, COMPLETE (RX100AV:EE,CIS) ***************************************
*	A-4398-057-A	MAIN BOARD, COMPLETE (GR10AV:AUS) ***********************************
*	A-4398-310-A	MAIN BOARD, COMPLETE (GR10AV:TH) **********************************
*	A-4398-876-A	MAIN BOARD, COMPLETE (GR10AV:EA) **********************************
*	A-4398-882-A	MAIN BOARD, COMPLETE (GR10AV:MY) **********************************

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C110	1-162-306-11	CERAMIC	0.01uF	20%	16V
C121	1-162-286-21	CERAMIC	220PF	10%	50V
C122	1-162-286-21	CERAMIC	220PF	10%	50V
C125	1-124-499-11	ELECT	1uF	20%	50V
C127	1-162-306-11	CERAMIC	0.01uF	20%	16V (GR10AV/RX100AV)
C128	1-162-306-11	CERAMIC	0.01uF	20%	16V (GR10AV/RX100AV)
C129	1-162-292-31	CERAMIC	680PF	10%	50V (GR10AV/RX100AV)
C130	1-126-964-11	ELECT	10uF	20%	50V (GR10AV/RX100AV)
C131	1-162-286-21	CERAMIC	220PF	10%	50V (GR10AV/RX100AV)
C171	1-162-286-21	CERAMIC	220PF	10%	50V
C172	1-162-286-21	CERAMIC	220PF	10%	50V
C201	1-126-957-11	ELECT	0.22uF	20%	50V
C202	1-126-957-11	ELECT	0.22uF	20%	50V
C203	1-136-495-11	FILM	0.068uF	5%	50V
C204	1-136-495-11	FILM	0.068uF	5%	50V
C205	1-136-156-00	FILM	0.018uF	5%	50V
C206	1-136-156-00	FILM	0.018uF	5%	50V
C207	1-130-480-00	MYLAR	0.0056uF	5%	50V
C208	1-130-479-00	MYLAR	0.0047uF	5%	50V
C209	1-130-474-00	MYLAR	0.0018uF	5%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V
C211	1-126-964-11	ELECT	10uF	20%	50V
C212	1-136-165-00	FILM	0.1uF	5%	50V
C213	1-136-165-00	FILM	0.1uF	5%	50V
C214	1-126-964-11	ELECT	10uF	20%	50V
C215	1-136-153-00	FILM	0.01uF	5%	50V
C230	1-136-167-00	FILM	0.15uF	5%	50V
C231	1-130-471-00	MYLAR	0.001uF	5%	50V
C234	1-126-933-11	ELECT	100uF	20%	10V
C235	1-164-159-21	CERAMIC	0.1uF		50V
C237	1-126-964-11	ELECT	10uF	20%	50V
C238	1-162-286-21	CERAMIC	220PF	10%	50V
C239	1-162-306-11	CERAMIC	0.01uF	20%	16V
C241	1-162-306-11	CERAMIC	0.01uF	20%	16V
C242	1-126-933-11	ELECT	100uF	20%	10V
C247	1-162-306-11	CERAMIC	0.01uF	20%	16V
C248	1-126-964-11	ELECT	10uF	20%	50V
C251	1-126-957-11	ELECT	0.22uF	20%	50V
C252	1-126-957-11	ELECT	0.22uF	20%	50V
C253	1-136-495-11	FILM	0.068uF	5%	50V
C254	1-136-495-11	FILM	0.068uF	5%	50V
C255	1-136-156-00	FILM	0.018uF	5%	50V
C256	1-136-156-00	FILM	0.018uF	5%	50V
C257	1-130-480-00	MYLAR	0.0056uF	5%	50V
C258	1-130-479-00	MYLAR	0.0047uF	5%	50V
C259	1-130-474-00	MYLAR	0.0018uF	5%	50V
C260	1-126-964-11	ELECT	10uF	20%	50V
C261	1-126-964-11	ELECT	10uF	20%	50V
C262	1-136-165-00	FILM	0.1uF	5%	50V
C263	1-136-165-00	FILM	0.1uF	5%	50V
C264	1-126-964-11	ELECT	10uF	20%	50V
C265	1-136-153-00	FILM	0.01uF	5%	50V

Ref. No.	Part No.	Description			Remark
C275	1-162-294-31	CERAMIC	0.001uF	10%	50V
C301	1-137-368-11	FILM	0.0047uF	5%	50V
C302	1-162-290-31	CERAMIC	470PF	10%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-126-964-11	ELECT	10uF	20%	50V
C305	1-126-960-11	ELECT	1uF	20%	50V
C306	1-126-964-11	ELECT	10uF	20%	50V
C307	1-126-964-11	ELECT	10uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-126-960-11	ELECT	1uF	20%	50V
C310	1-126-933-11	ELECT	100uF	20%	10V
C351	1-137-368-11	FILM	0.0047uF	5%	50V
C352	1-162-290-31	CERAMIC	470PF	10%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-964-11	ELECT	10uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-126-960-11	ELECT	1uF	20%	50V
C360	1-126-933-11	ELECT	100uF	20%	10V
C401	1-164-159-21	CERAMIC	0.1uF		50V
C402	1-164-159-21	CERAMIC	0.1uF		50V
C403	1-164-159-21	CERAMIC	0.1uF		50V
C404	1-126-933-11	ELECT	100uF	20%	16V
C405	1-126-767-11	ELECT	1000uF	20%	16V
C601	1-136-167-00	FILM	0.15uF	5%	50V
C602	1-136-167-00	FILM	0.15uF	5%	50V
C603	1-126-962-11	ELECT	3.3uF	20%	50V
C604	1-126-962-11	ELECT	3.3uF	20%	50V
C605	1-136-167-00	FILM	0.15uF	5%	50V
C606	1-136-167-00	FILM	0.15uF	5%	50V
C607	1-126-963-11	ELECT	4.7uF	20%	50V
C608	1-126-963-11	ELECT	4.7uF	20%	50V
C609	1-126-959-11	ELECT	0.47uF	20%	50V
C610	1-126-959-11	ELECT	0.47uF	20%	50V
C611	1-126-963-11	ELECT	4.7uF	20%	50V
C612	1-126-963-11	ELECT	4.7uF	20%	50V
C613	1-126-959-11	ELECT	0.47uF	20%	50V
C614	1-126-959-11	ELECT	0.47uF	20%	50V
C615	1-136-165-00	FILM	0.1uF	5%	50V
C616	1-136-165-00	FILM	0.1uF	5%	50V
C617	1-136-165-00	FILM	0.1uF	5%	50V
C618	1-136-165-00	FILM	0.1uF	5%	50V
C619	1-126-960-11	ELECT	1uF	20%	50V
C620	1-126-960-11	ELECT	1uF	20%	50V
C621	1-126-923-11	ELECT	220uF	20%	10V
C622	1-126-964-11	ELECT	10uF	20%	50V
C623	1-126-964-11	ELECT	10uF	20%	50V
C624	1-126-964-11	ELECT	10uF	20%	50V
C625	1-126-964-11	ELECT	10uF	20%	50V
C626	1-126-923-11	ELECT	220uF	20%	10V
C627	1-136-161-00	FILM	0.047uF	5%	50V
C628	1-136-157-00	FILM	0.022uF	5%	50V
C629	1-162-292-31	CERAMIC	680PF	10%	50V
C630	1-126-933-11	ELECT	100uF	20%	10V
C631	1-162-306-11	CERAMIC	0.01uF	20%	16V
C632	1-126-964-11	ELECT	10uF	20%	50V
C633	1-136-173-00	FILM	0.47uF	5%	50V
C634	1-104-664-11	ELECT	47uF	20%	25V
C635	1-130-467-00	MYLAR	470PF	5%	50V
C636	1-130-467-00	MYLAR	470PF	5%	50V
C637	1-162-306-11	CERAMIC	0.01uF	20%	16V
C638	1-162-306-11	CERAMIC	0.01uF	20%	16V
C641	1-124-252-00	ELECT	0.33uF	20%	50V
C642	1-136-159-00	FILM	0.033uF	5%	50V
C643	1-162-306-11	CERAMIC	0.01uF	20%	16V
C644	1-126-933-11	ELECT	100uF	20%	10V
C645	1-126-961-11	ELECT	2.2uF	20%	50V
C646	1-162-286-21	CERAMIC	220PF	10%	50V
C647	1-162-306-11	CERAMIC	0.01uF	20%	16V
C648	1-126-923-11	ELECT	220uF	20%	10V
C649	1-136-164-00	FILM	0.082uF	5%	50V
C650	1-130-477-00	MYLAR	0.0033uF	5%	50V
C651	1-136-164-00	FILM	0.082uF	5%	50V
C652	1-126-959-11	ELECT	0.47uF	20%	50V
C653	1-126-923-11	ELECT	220uF	20%	10V
C654	1-126-960-11	ELECT	1uF	20%	50V
C655	1-126-960-11	ELECT	1uF	20%	50V
C656	1-126-964-11	ELECT	10uF	20%	50V
C657	1-162-306-11	CERAMIC	0.01uF	20%	16V
C658	1-162-286-21	CERAMIC	220PF	10%	50V
C660	1-126-933-11	ELECT	100uF	20%	10V
C661	1-162-294-31	CERAMIC	0.001uF	10%	50V
C662	1-126-933-11	ELECT	100uF	20%	10V
C663	1-162-294-31	CERAMIC	0.001uF	10%	50V
C664	1-126-964-11	ELECT	10uF	20%	50V
C665	1-126-964-11	ELECT	10uF	20%	50V
C666	1-126-964-11	ELECT	10uF	20%	50V
C667	1-126-964-11	ELECT	10uF	20%	50V
C668	1-162-286-21	CERAMIC	220PF	10%	50V
C669	1-124-499-11	ELECT	1uF	20%	50V
C678	1-162-294-31	CERAMIC	0.001uF	10%	50V
C711	1-126-916-11	ELECT	1000uF	20%	6.3V
C712	1-164-159-21	CERAMIC	0.1uF		50V
C713	1-164-027-11	CERAMIC	22PF	5%	50V
C714	1-164-027-11	CERAMIC	22PF	5%	50V
C723	1-164-159-21	CERAMIC	0.1uF		50V
C724	1-126-933-11	ELECT	100uF	20%	10V
C766	1-162-294-31	CERAMIC	0.001uF	10%	50V
C801	1-126-961-11	ELECT	2.2uF	20%	50V
C803	1-126-925-11	ELECT	470uF	20%	10V
C804	1-164-159-21	CERAMIC	0.1uF		50V
C805	1-162-282-31	CERAMIC	100PF	10%	50V
C811	1-126-961-11	ELECT	2.2uF	20%	50V
C841	1-164-159-21	CERAMIC	0.1uF		50V
C842	1-126-933-11	ELECT	100uF	20%	10V
C851	1-164-159-21	CERAMIC	0.1uF		50V (R)1 00AV:EE,CIS)
C852	1-164-159-21	CERAMIC	0.1uF		50V (R)1 00AV:EE,CIS)
C853	1-162-294-31	CERAMIC	0.001uF	10%	50V
C854	1-162-294-31	CERAMIC	0.001uF	10%	50V
C855	1-162-294-31	CERAMIC	0.001uF	10%	50V
C856	1-162-294-31	CERAMIC	0.001uF	10%	50V
C861	1-162-306-11	CERAMIC	0.01uF	20%	16V
C862	1-126-964-11	ELECT	10uF	20%	50V
C863	1-126-964-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description	Remark
C901	1-126-937-11	ELECT 4700uF 20%	16V
C902	1-126-768-11	ELECT 2200uF 20%	16V
C903	1-164-159-21	CERAMIC 0.1uF	50V
C904	1-164-159-21	CERAMIC 0.1uF	50V
C908	1-126-933-11	ELECT 100uF 20%	10V
C909	1-126-933-11	ELECT 100uF 20%	10V
C910	1-126-964-11	ELECT 10uF 20%	50V
C911	1-126-768-11	ELECT 2200uF 20%	16V
C913	1-126-964-11	ELECT 10uF 20%	50V
C914	1-126-767-11	ELECT 1000uF 20%	16V
C915	1-126-964-11	ELECT 10uF 20%	50V
C916	1-126-916-11	ELECT 1000uF 20%	6.3V
C917	1-126-925-11	ELECT 470uF 20%	10V
C918	1-126-933-11	ELECT 100uF 20%	10V
C919	1-126-964-11	ELECT 10uF 20%	50V
C920	1-126-933-11	ELECT 100uF 20%	10V
C943	1-162-294-31	CERAMIC 0.001uF 10%	50V
C944	1-126-947-11	ELECT 47uF 20%	35V
C951	1-126-967-11	ELECT 47uF 20%	10V
C952	1-136-165-00	FILM 0.1uF 5%	50V
C953	1-136-165-00	FILM 0.1uF 5%	50V
C961	1-162-306-11	CERAMIC 0.01uF 20%	16V
C991	1-162-306-11	CERAMIC 0.01uF 20%	16V
C992	1-162-306-11	CERAMIC 0.01uF 20%	16V (GR10AV/RX100AV)
		< CONNECTOR >	
CN401	1-568-838-11	SOCKET, CONNECTOR 21P	
* CN402	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN403	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P	
* CN701	1-568-836-11	SOCKET, CONNECTOR 17P	
* CN801	1-568-862-11	SOCKET, CONNECTOR 19P	
* CN820	1-568-947-11	PIN, CONNECTOR 9P	
* CN830	1-568-946-11	PIN, CONNECTOR 8P	
* CN851	1-568-832-11	SOCKET, CONNECTOR 13P (D90AV/GR10AV:E2,TH,AUS/RX100AV:US,CND)	
* CN851	1-568-834-11	SOCKET, CONNECTOR 15P (GR10AV:E3,EA,MY,SP,JE,HK,IA/RX100AV:AEP,UK,G,EE,CIS)	
* CN901	1-770-734-11	CONNECTOR, BOARD TO BOARD 20P	
* CN961	1-564-518-11	PLUG, CONNECTOR 3P	
		< DIODE >	
D702	8-719-987-63	DIODE 1N4148M	
D772	8-719-987-63	DIODE 1N4148M	
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-987-63	DIODE 1N4148M	
D901	8-719-025-03	DIODE RBA-402-SL	
D902	8-719-200-82	DIODE 11ES2	
D904	8-719-987-63	DIODE 1N4148M	
D905	8-719-200-82	DIODE 11ES2	
D906	8-719-200-82	DIODE 11ES2	
D907	8-719-987-63	DIODE 1N4148M	
D908	8-719-200-82	DIODE 11ES2	
D941	8-719-002-60	DIODE UZL-33L	
D942	8-719-010-43	DIODE UZ-5.6BSC	
D951	8-719-987-63	DIODE 1N4148M	
D952	8-719-987-63	DIODE 1N4148M	
D953	8-719-987-63	DIODE 1N4148M	
D954	8-719-987-63	DIODE 1N4148M	

Ref. No.	Part No.	Description	Remark
		< GROUND TERMINAL >	
* EPT901	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB801	1-412-473-21	INDUCTOR 0UH	
		< IC >	
IC102	8-759-000-48	IC MC14052BCP	
IC105	8-759-634-51	IC M5218AP (GR10AV/RX100AV)	
IC201	8-759-331-39	IC M62427FP	
IC401	8-759-363-21	IC HA12203NT	
IC402	8-759-822-09	IC LB1641	
IC601	8-759-442-96	IC LA2786	
IC602	8-759-442-97	IC LV1016	
IC603	8-759-634-51	IC M5218AP	
IC604	8-759-281-42	IC TC9210P	
IC701	8-759-468-69	IC uPD780018YGF-017-3BA	
IC841	8-749-923-04	IC TOTX178 (CD DIGITAL OUT OPTICAL)	
IC861	8-759-634-51	IC M5218AP	
IC901	8-759-288-53	IC LA5617	
IC902	8-759-231-53	IC TA7805S	
IC903	8-759-604-86	IC M5F7807L	
IC904	8-759-231-58	IC TA7812S	
IC905	8-759-604-38	IC M5F78M10L	
IC951	8-759-635-63	IC M51943BSL	
		< JACK >	
J101	1-695-188-31	JACK, PIN 4P (VIDEO/MD (AUDIO))	
J102	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (GR10AV/RX100AV)	
		< COIL >	
L601	1-410-509-11	INDUCTOR 10uH	
L602	1-410-509-11	INDUCTOR 10uH	
L604	1-410-509-11	INDUCTOR 10uH	
L769	1-410-521-11	INDUCTOR 100uH	
L770	1-410-521-11	INDUCTOR 100uH	
L772	1-410-521-11	INDUCTOR 100uH	
L841	1-410-521-11	INDUCTOR 100uH	
L851	1-410-521-11	INDUCTOR 100uH (RX100AV:AEP,UK,G)	
L861	1-410-521-11	INDUCTOR 100uH	
		< TRANSISTOR >	
Q120	8-729-422-57	TRANSISTOR UN4111	
Q121	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q122	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q123	8-729-422-57	TRANSISTOR UN4111	
Q124	8-729-900-36	TRANSISTOR DTC124ES	
Q130	8-729-141-26	TRANSISTOR 2SC3622A-LK (GR10AV/RX100AV)	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q252	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q253	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q254	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q403	8-729-801-93	TRANSISTOR 2SD1387	
Q406	8-729-900-80	TRANSISTOR DTC114ES	

Ref. No.	Part No.	Description				Remark
Q407	8-729-900-80	TRANSISTOR	DTC114ES			
Q408	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q409	8-729-900-80	TRANSISTOR	DTC114ES			
Q601	8-729-141-26	TRANSISTOR	2SC3622A-LK			
Q602	8-729-141-26	TRANSISTOR	2SC3622A-LK			
Q901	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q904	8-729-040-20	TRANSISTOR	RT1P137L-TP			
Q905	8-729-900-36	TRANSISTOR	DTC124ES			
Q906	8-729-040-20	TRANSISTOR	RT1P137L-TP			
Q907	8-729-900-63	TRANSISTOR	DTA124ES			
Q912	8-729-900-36	TRANSISTOR	DTC124ES			
Q941	8-729-118-01	TRANSISTOR	2SB1116			
Q951	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q961	8-729-111-29	TRANSISTOR	2SD1616A-K			
Q962	8-729-119-76	TRANSISTOR	2SA1175-HFE			
		< RESISTOR >				
R121	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R122	1-247-887-00	CARBON	220K	5%	1/4W	
R123	1-249-417-11	CARBON	1K	5%	1/4W	F
R124	1-249-441-11	CARBON	100K	5%	1/4W	
R125	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R126	1-249-441-11	CARBON	100K	5%	1/4W	
R127	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R128	1-249-426-11	CARBON	5.6K	5%	1/4W	
R129	1-249-429-11	CARBON	10K	5%	1/4W	
R130	1-249-441-11	CARBON	100K	5%	1/4W	
R131	1-249-437-11	CARBON	47K	5%	1/4W	(GR10AV/RX100AV)
R132	1-247-843-11	CARBON	3.3K	5%	1/4W	(GR10AV/RX100AV)
R133	1-249-429-11	CARBON	10K	5%	1/4W	(GR10AV/RX100AV)
R134	1-249-417-11	CARBON	1K	5%	1/4W	F (GR10AV/RX100AV)
R135	1-249-441-11	CARBON	100K	5%	1/4W	(GR10AV/RX100AV)
R136	1-249-417-11	CARBON	1K	5%	1/4W	F (GR10AV/RX100AV)
R137	1-249-429-11	CARBON	10K	5%	1/4W	(GR10AV/RX100AV)
R138	1-249-441-11	CARBON	100K	5%	1/4W	(GR10AV/RX100AV)
R171	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R172	1-247-887-00	CARBON	220K	5%	1/4W	
R173	1-249-417-11	CARBON	1K	5%	1/4W	F
R174	1-249-441-11	CARBON	100K	5%	1/4W	
R178	1-249-426-11	CARBON	5.6K	5%	1/4W	
R179	1-249-429-11	CARBON	10K	5%	1/4W	
R201	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R202	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R203	1-249-437-11	CARBON	47K	5%	1/4W	
R204	1-249-437-11	CARBON	47K	5%	1/4W	
R205	1-249-441-11	CARBON	100K	5%	1/4W	
R206	1-247-903-00	CARBON	1M	5%	1/4W	
R207	1-247-887-00	CARBON	220K	5%	1/4W	
R208	1-247-863-91	CARBON	22K	5%	1/4W	
R209	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R210	1-249-429-11	CARBON	10K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R211	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R212	1-249-441-11	CARBON	100K	5%	1/4W	
R213	1-249-429-11	CARBON	10K	5%	1/4W	
R214	1-249-437-11	CARBON	47K	5%	1/4W	
R215	1-249-441-11	CARBON	100K	5%	1/4W	
R217	1-249-431-11	CARBON	15K	5%	1/4W	
R222	1-247-903-00	CARBON	1M	5%	1/4W	
R223	1-247-903-00	CARBON	1M	5%	1/4W	
R230	1-247-863-91	CARBON	22K	5%	1/4W	
R231	1-247-863-91	CARBON	22K	5%	1/4W	
R232	1-247-856-00	CARBON	11K	5%	1/4W	
R240	1-249-429-11	CARBON	10K	5%	1/4W	
R241	1-249-429-11	CARBON	10K	5%	1/4W	
R242	1-249-429-11	CARBON	10K	5%	1/4W	
R243	1-249-417-11	CARBON	1K	5%	1/4W	F
R244	1-249-417-11	CARBON	1K	5%	1/4W	F
R245	1-249-417-11	CARBON	1K	5%	1/4W	F
R251	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R252	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R253	1-249-437-11	CARBON	47K	5%	1/4W	
R254	1-249-437-11	CARBON	47K	5%	1/4W	
R255	1-249-441-11	CARBON	100K	5%	1/4W	
R256	1-247-903-00	CARBON	1M	5%	1/4W	
R257	1-247-887-00	CARBON	220K	5%	1/4W	
R258	1-247-863-91	CARBON	22K	5%	1/4W	
R259	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R260	1-249-429-11	CARBON	10K	5%	1/4W	
R261	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R262	1-249-441-11	CARBON	100K	5%	1/4W	
R263	1-249-429-11	CARBON	10K	5%	1/4W	
R264	1-249-437-11	CARBON	47K	5%	1/4W	
R265	1-249-441-11	CARBON	100K	5%	1/4W	
R267	1-249-431-11	CARBON	15K	5%	1/4W	
R273	1-247-903-00	CARBON	1M	5%	1/4W	
R301	1-249-435-11	CARBON	33K	5%	1/4W	
R304	1-249-426-11	CARBON	5.6K	5%	1/4W	
R305	1-249-417-11	CARBON	1K	5%	1/4W	F
R306	1-247-840-00	CARBON	2.4K	5%	1/4W	
R307	1-247-863-91	CARBON	22K	5%	1/4W	
R308	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R309	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R351	1-247-863-91	CARBON	22K	5%	1/4W	
R354	1-249-426-11	CARBON	5.6K	5%	1/4W	
R355	1-249-417-11	CARBON	1K	5%	1/4W	F
R356	1-247-840-00	CARBON	2.4K	5%	1/4W	
R357	1-247-863-91	CARBON	22K	5%	1/4W	
R358	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R359	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R401	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R402	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R403	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R404	1-249-417-11	CARBON	1K	5%	1/4W	F
R405	1-249-437-11	CARBON	47K	5%	1/4W	
R406	1-249-437-11	CARBON	47K	5%	1/4W	
R407	1-249-437-11	CARBON	47K	5%	1/4W	
R408	1-249-437-11	CARBON	47K	5%	1/4W	
R410	1-249-430-11	CARBON	12K	5%	1/4W	
R411	1-249-426-11	CARBON	5.6K	5%	1/4W	

MAIN

Ref. No.	Part No.	Description				Remark
R414	1-249-429-11	CARBON	10K	5%	1/4W	
R415	1-249-432-11	CARBON	18K	5%	1/4W	
R416	1-249-429-11	CARBON	10K	5%	1/4W	
R417	1-249-441-11	CARBON	100K	5%	1/4W	
R419	1-249-429-11	CARBON	10K	5%	1/4W	
R454	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R455	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R456	1-249-411-11	CARBON	330	5%	1/4W	
R457	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R458	1-249-429-11	CARBON	10K	5%	1/4W	
R461	1-247-843-11	CARBON	3.3K	5%	1/4W	
R601	1-247-887-00	CARBON	220K	5%	1/4W	
R602	1-247-887-00	CARBON	220K	5%	1/4W	
R603	1-249-417-11	CARBON	1K	5%	1/4W	F
R604	1-249-432-11	CARBON	18K	5%	1/4W	
R605	1-249-417-11	CARBON	1K	5%	1/4W	F
R615	1-249-441-11	CARBON	100K	5%	1/4W	
R621	1-249-436-11	CARBON	39K	5%	1/4W	
R622	1-249-436-11	CARBON	39K	5%	1/4W	
R623	1-249-417-11	CARBON	1K	5%	1/4W	F
R624	1-247-903-00	CARBON	1M	5%	1/4W	
R625	1-249-411-11	CARBON	330	5%	1/4W	
R626	1-249-417-11	CARBON	1K	5%	1/4W	F
R627	1-249-417-11	CARBON	1K	5%	1/4W	F
R628	1-249-417-11	CARBON	1K	5%	1/4W	F
R630	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R631	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R632	1-249-441-11	CARBON	100K	5%	1/4W	
R633	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R634	1-249-432-11	CARBON	18K	5%	1/4W	
R635	1-249-441-11	CARBON	100K	5%	1/4W	
R636	1-249-437-11	CARBON	47K	5%	1/4W	
R637	1-249-441-11	CARBON	100K	5%	1/4W	
R638	1-249-441-11	CARBON	100K	5%	1/4W	
R639	1-249-417-11	CARBON	1K	5%	1/4W	F
R640	1-249-417-11	CARBON	1K	5%	1/4W	F
R641	1-249-417-11	CARBON	1K	5%	1/4W	F
R642	1-249-417-11	CARBON	1K	5%	1/4W	F
R645	1-249-429-11	CARBON	10K	5%	1/4W	
R646	1-249-429-11	CARBON	10K	5%	1/4W	
R650	1-249-441-11	CARBON	100K	5%	1/4W	
R651	1-249-417-11	CARBON	1K	5%	1/4W	F
R700	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R718	1-247-807-31	CARBON	100	5%	1/4W	
R720	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R721	1-247-807-31	CARBON	100	5%	1/4W	(RX100AV:AEP,UK,G,EE,CIS)
R722	1-247-807-31	CARBON	100	5%	1/4W	(RX100AV:AEP,UK,G,EE,CIS)
R726	1-247-807-31	CARBON	100	5%	1/4W	
R727	1-247-807-31	CARBON	100	5%	1/4W	
R728	1-247-807-31	CARBON	100	5%	1/4W	
R730	1-249-427-11	CARBON	6.8K	5%	1/4W	F (GR10AV:E2/RX100AV:EE,CIS)
R730	1-249-429-11	CARBON	10K	5%	1/4W	(GR10AV:EA)
R730	1-247-843-11	CARBON	3.3K	5%	1/4W	(RX100AV:AEP,UK,G)
R730	1-249-431-11	CARBON	15K	5%	1/4W	(GR10AV:TH)
R730	1-249-425-11	CARBON	4.7K	5%	1/4W	F (GR10AV:AUS)
R731	1-249-425-11	CARBON	4.7K	5%	1/4W	F (GR10AV:E2)
R731	1-247-843-11	CARBON	3.3K	5%	1/4W	(GR10AV:EA)
R731	1-249-435-11	CARBON	33K	5%	1/4W	(RX100AV:EE,CIS)
R731	1-249-427-11	CARBON	6.8K	5%	1/4W	F (GR10AV:AUS/RX100AV:AEP,UK,G)
R731	1-249-415-11	CARBON	680	5%	1/4W	F (GR10AV:TH)
R734	1-247-807-31	CARBON	100	5%	1/4W	
R736	1-247-807-31	CARBON	100	5%	1/4W	
R744	1-247-807-31	CARBON	100	5%	1/4W	
R745	1-247-807-31	CARBON	100	5%	1/4W	
R747	1-247-807-31	CARBON	100	5%	1/4W	
R748	1-247-807-31	CARBON	100	5%	1/4W	
R755	1-247-807-31	CARBON	100	5%	1/4W	
R756	1-247-807-31	CARBON	100	5%	1/4W	
R757	1-247-807-31	CARBON	100	5%	1/4W	
R758	1-247-807-31	CARBON	100	5%	1/4W	
R759	1-247-807-31	CARBON	100	5%	1/4W	
R760	1-247-807-31	CARBON	100	5%	1/4W	
R761	1-247-807-31	CARBON	100	5%	1/4W	
R763	1-247-807-31	CARBON	100	5%	1/4W	
R764	1-247-807-31	CARBON	100	5%	1/4W	
R765	1-247-807-31	CARBON	100	5%	1/4W	
R766	1-247-807-31	CARBON	100	5%	1/4W	
R767	1-247-807-31	CARBON	100	5%	1/4W	
R768	1-247-807-31	CARBON	100	5%	1/4W	
R773	1-247-807-31	CARBON	100	5%	1/4W	
R774	1-247-807-31	CARBON	100	5%	1/4W	
R775	1-247-807-31	CARBON	100	5%	1/4W	
R776	1-247-807-31	CARBON	100	5%	1/4W	
R778	1-247-807-31	CARBON	100	5%	1/4W	
R779	1-247-807-31	CARBON	100	5%	1/4W	
R780	1-247-807-31	CARBON	100	5%	1/4W	
R781	1-247-807-31	CARBON	100	5%	1/4W	
R794	1-247-807-31	CARBON	100	5%	1/4W	
R795	1-247-807-31	CARBON	100	5%	1/4W	
R796	1-247-807-31	CARBON	100	5%	1/4W	
R797	1-247-807-31	CARBON	100	5%	1/4W	
R798	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R801	1-247-807-31	CARBON	100	5%	1/4W	
R802	1-249-435-11	CARBON	33K	5%	1/4W	
R811	1-247-807-31	CARBON	100	5%	1/4W	
R812	1-249-435-11	CARBON	33K	5%	1/4W	
R815	1-247-807-31	CARBON	100	5%	1/4W	
R856	1-249-417-11	CARBON	1K	5%	1/4W	F
R858	1-249-417-11	CARBON	1K	5%	1/4W	F
R861	1-247-891-00	CARBON	330K	5%	1/4W	
R862	1-249-441-11	CARBON	100K	5%	1/4W	
R869	1-249-429-11	CARBON	10K	5%	1/4W	
R870	1-247-843-11	CARBON	3.3K	5%	1/4W	
R878	1-249-437-11	CARBON	47K	5%	1/4W	
R879	1-249-437-11	CARBON	47K	5%	1/4W	

Ref. No.	Part No.	Description			Remark	
R880	1-249-437-11	CARBON	47K	5%	1/4W	
R881	1-249-437-11	CARBON	47K	5%	1/4W	
R901	1-247-895-91	CARBON	470K	5%	1/4W	
R902	1-249-417-11	CARBON	1K	5%	1/4W	F
R906	1-249-417-11	CARBON	1K	5%	1/4W	F
R907	1-249-429-11	CARBON	10K	5%	1/4W	
R910	1-216-447-51	CARBON	27	5%	2W	F
R911	1-216-447-51	CARBON	27	5%	2W	F
R912	1-249-417-11	CARBON	1K	5%	1/4W	F
R942	1-247-863-91	CARBON	22K	5%	1/4W	
R943	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R944	1-247-815-91	CARBON	220	5%	1/4W	
R945	1-247-815-91	CARBON	220	5%	1/4W	
R946	1-260-089-11	CARBON	150	5%	1/2W	
R951	1-249-417-11	CARBON	1K	5%	1/4W	F
R952	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R953	1-247-807-31	CARBON	100	5%	1/4W	
R954	1-249-437-11	CARBON	47K	5%	1/4W	
R955	1-249-437-11	CARBON	47K	5%	1/4W	
R956	1-249-429-11	CARBON	10K	5%	1/4W	
R961	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R962	1-249-432-11	CARBON	18K	5%	1/4W	
R963	1-249-425-11	CARBON	4.7K	5%	1/4W	F
		< VARIABLE RESISTOR >				
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K				
RV351	1-238-598-11	RES, ADJ, CARBON 2.2K				
		< VIBRATOR >				
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)				
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)				
X702	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)				

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Ref. No.	Part No.	Description			Remark
*	1-658-578-11	MOTOR (SLIDE) BOARD *******************			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
		< DIODE >			
D801	8-719-010-43	DIODE UZ-5.6BSC			
D804	8-719-987-63	DIODE 1N4148M			
D805	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC801	8-759-274-09	IC BA6286N			
		< MOTOR >			
M801	A-4672-004-A	MOTOR ASSY (SLIDE)			

Ref. No.	Part No.	Description			Remark	
		< RESISTOR >				
R801	1-249-401-11	CARBON	47	5%	1/4W	F
		< SWITCH >				
S801	1-762-527-11	SWITCH, ROTARY (OPEN/CLOSE)				

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Ref. No.	Part No.	Description			Remark	
*	1-658-577-11	MOTOR (TURN) BOARD *******************				
		< CAPACITOR >				
C701	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C702	1-126-964-11	ELECT	10uF	20%	50V	
C705	1-162-306-11	CERAMIC	0.01uF	20%	16V	
		< CONNECTOR >				
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P				
CN704	1-506-469-11	PIN, CONNECTOR 4P				
		< DIODE >				
D701	8-719-010-23	DIODE UZ-3.6BSB				
		< IC >				
IC701	8-759-633-65	IC M54641L				
		< MOTOR >				
M701	A-4672-004-A	MOTOR ASSY (TURN)				
		< RESISTOR >				
R706	1-249-411-11	CARBON	330	5%	1/4W	
R707	1-249-401-11	CARBON	47	5%	1/4W	F

****

Ref. No.	Part No.	Description			Remark
*	A-4392-645-A	PANEL BOARD, COMPLETE ********************* (D90AV/RX100AV:US,CND)			
*	A-4392-643-A	PANEL BOARD, COMPLETE ********************* (GR10AV/RX100AV:EE,CIS)			
*	A-4392-644-A	PANEL BOARD, COMPLETE (RX100AV:AEP,UK,G) ***********************************			
	1-690-880-11	LEAD (WITH CONNECTOR)			
*	4-986-870-01	HOLDER, FL TUBE (GR10AV:TH)			
*	4-986-870-11	HOLDER, FL TUBE (EXCEPT GR10AV:TH)			
*	4-986-880-01	HOLDER (JOG) (GR10AV:TH)			
*	4-986-880-11	HOLDER (JOG) (EXCEPT GR10AV:TH)			
		< CAPACITOR >			
C601	1-162-294-31	CERAMIC	0.001uF	10%	50V
C602	1-164-159-21	CERAMIC	0.1uF	20%	16V
C603	1-124-589-11	ELECT	47uF	20%	16V
C604	1-126-163-11	ELECT	4.7uF	20%	50V
C605	1-162-294-31	CERAMIC	0.001uF	10%	50V
C606	1-126-160-11	ELECT	1uF	20%	50V

PANEL

Ref. No.	Part No.	Description			Remark
C607	1-126-160-11	ELECT	1uF	20%	50V
C608	1-162-294-31	CERAMIC	0.001uF	10%	50V
C609	1-162-282-31	CERAMIC	100PF	10%	50V
C610	1-162-282-31	CERAMIC	100PF	10%	50V
C611	1-162-282-31	CERAMIC	100PF	10%	50V
C612	1-162-282-31	CERAMIC	100PF	10%	50V
C613	1-162-282-31	CERAMIC	100PF	10%	50V
C614	1-162-282-31	CERAMIC	100PF	10%	50V
C615	1-162-282-31	CERAMIC	100PF	10%	50V
C616	1-162-282-31	CERAMIC	100PF	10%	50V
C617	1-162-282-31	CERAMIC	100PF	10%	50V
C618	1-162-282-31	CERAMIC	100PF	10%	50V
C619	1-162-282-31	CERAMIC	100PF	10%	50V
C620	1-162-282-31	CERAMIC	100PF	10%	50V
C621	1-162-282-31	CERAMIC	100PF	10%	50V
C622	1-162-282-31	CERAMIC	100PF	10%	50V
C623	1-162-282-31	CERAMIC	100PF	10%	50V
C624	1-162-282-31	CERAMIC	100PF	10%	50V
C625	1-162-294-31	CERAMIC	0.001uF	10%	50V
C626	1-124-589-11	ELECT	47uF	20%	16V
C627	1-162-306-11	CERAMIC	0.01uF	20%	16V
C628	1-162-306-11	CERAMIC	0.01uF	20%	16V
C629	1-162-306-11	CERAMIC	0.01uF	20%	16V
C630	1-162-306-11	CERAMIC	0.01uF	20%	16V
C636	1-126-160-11	ELECT	1uF	20%	50V
C637	1-136-161-00	FILM	0.047uF	5%	50V
C638	1-124-464-11	ELECT	0.22uF	20%	50V
C639	1-124-464-11	ELECT	0.22uF	20%	50V
C640	1-162-306-11	CERAMIC	0.01uF	20%	16V
C641	1-124-464-11	ELECT	0.22uF	20%	50V
C642	1-136-159-00	FILM	0.033uF	5%	50V
C643	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C644	1-124-464-11	ELECT	0.22uF	20%	50V
C646	1-130-470-00	MYLAR	820PF	5%	50V
C647	1-124-464-11	ELECT	0.22uF	20%	50V
C648	1-164-159-21	CERAMIC	0.1uF	20%	16V
C649	1-124-589-11	ELECT	47uF	20%	16V
C650	1-124-464-11	ELECT	0.22uF	20%	50V
C653	1-164-159-21	CERAMIC	0.1uF		50V
C654	1-162-294-31	CERAMIC	0.001uF		50V
		< CONNECTOR >			
CN601	1-568-860-11	SOCKET, CONNECTOR 17P			
CN603	1-568-853-11	SOCKET, CONNECTOR 10P (GR10AV/RX100AV:AEP,UK,G,EE,CIS)			
* CN603	1-568-851-11	SOCKET, CONNECTOR 8P (D90AV/RX100AV:US,CND)			
CN609	1-691-645-11	SOCKET, CONNECTOR 9P			
		< DIODE >			
D601	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)			
D602	8-719-057-44	DIODE HLMF-K305-2UP (DSP)			
D604	8-719-058-04	DIODE SEL5223S-TP15 (EFFECT ON/OFF)			
D605	8-719-058-04	DIODE SEL5223S-TP15 (JOG)			
D606	8-719-057-44	DIODE HLMF-K305-2UP (+)			
D607	8-719-057-44	DIODE HLMF-K305-2UP (–)			
D608	8-719-057-44	DIODE HLMF-K305-2UP (⏭)			
D609	8-719-057-44	DIODE HLMF-K305-2UP (⏮)			

Ref. No.	Part No.	Description			Remark	
D610	8-719-057-30	DIODE HLMF-K205-2UL (ENTER/NEXT)				
D611	8-719-057-97	DIODE SEL5923A-TP15 (PROLOGIC)				
D612	8-719-057-97	DIODE SEL5923A-TP15 (PROLOGIC)				
D614	8-719-057-44	DIODE HLMF-K305-2UP (GROOVE)				
D615	8-719-058-04	DIODE SEL5223S-TP15 (NON-STOP)				
D650	8-719-987-63	DIODE 1N4148M				
D651	8-719-987-63	DIODE 1N4148M				
D652	8-719-987-63	DIODE 1N4148M				
D653	8-719-987-63	DIODE 1N4148M				
D654	8-719-987-63	DIODE 1N4148M				
D655	8-719-987-63	DIODE 1N4148M				
D656	8-719-987-63	DIODE 1N4148M				
		< FERRITE BEAD >				
FB601	1-412-473-21	INDUCTOR 0UH				
		< FLUORESCENT INDICATOR >				
FL601	1-517-618-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC601	8-759-446-27	IC TMP87CH75F-6543				
IC602	8-759-332-18	IC GP1U27XB				
		< COIL >				
L601	1-410-509-11	INDUCTOR 10uH				
		< TRANSISTOR >				
Q601	8-729-118-00	TRANSISTOR 2SB1116-L				
Q602	8-729-118-00	TRANSISTOR 2SB1116-L				
Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q604	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q605	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q606	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q607	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q608	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R601	1-247-903-00	CARBON	1M	5%	1/4W	
R602	1-247-807-31	CARBON	100	5%	1/4W	
R603	1-249-429-11	CARBON	10K	5%	1/4W	
R604	1-249-429-11	CARBON	10K	5%	1/4W	
R605	1-249-429-11	CARBON	10K	5%	1/4W	
R606	1-249-429-11	CARBON	10K	5%	1/4W	
R607	1-249-429-11	CARBON	10K	5%	1/4W	
R608	1-247-843-11	CARBON	3.3K	5%	1/4W	
R609	1-247-843-11	CARBON	3.3K	5%	1/4W	
R610	1-247-807-31	CARBON	100	5%	1/4W	
R611	1-247-807-31	CARBON	100	5%	1/4W	
R612	1-249-429-11	CARBON	10K	5%	1/4W	
R613	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R614	1-247-863-91	CARBON	22K	5%	1/4W	
R615	1-249-429-11	CARBON	10K	5%	1/4W	
R616	1-249-429-11	CARBON	10K	5%	1/4W	
R617	1-247-804-11	CARBON	75	5%	1/4W	
R618	1-247-804-11	CARBON	75	5%	1/4W	
R619	1-249-401-11	CARBON	47	5%	1/4W	F
R620	1-249-419-11	CARBON	1.5K	5%	1/4W	F

Ref. No.	Part No.	Description			Remark
R621	1-249-419-11	CARBON	1.5K	5%	1/4W F
R622	1-249-401-11	CARBON	47	5%	1/4W F
R623	1-249-403-11	CARBON	68	5%	1/4W F
R624	1-247-807-31	CARBON	100	5%	1/4W
R625	1-249-407-11	CARBON	150	5%	1/4W F
R626	1-249-407-11	CARBON	150	5%	1/4W F
R627	1-247-815-91	CARBON	220	5%	1/4W
R628	1-249-411-11	CARBON	330	5%	1/4W
R629	1-249-413-11	CARBON	470	5%	1/4W F
R630	1-249-415-11	CARBON	680	5%	1/4W F
R631	1-249-417-11	CARBON	1K	5%	1/4W F
R632	1-249-419-11	CARBON	1.5K	5%	1/4W F
R633	1-249-421-11	CARBON	2.2K	5%	1/4W F
R634	1-249-419-11	CARBON	1.5K	5%	1/4W F
R635	1-249-401-11	CARBON	47	5%	1/4W F
R636	1-249-403-11	CARBON	68	5%	1/4W F
R637	1-247-826-00	CARBON	620	5%	1/4W
R639	1-249-411-11	CARBON	330	5%	1/4W
R640	1-249-413-11	CARBON	470	5%	1/4W F
R641	1-249-415-11	CARBON	680	5%	1/4W F
R642	1-249-417-11	CARBON	1K	5%	1/4W F
R643	1-249-419-11	CARBON	1.5K	5%	1/4W F
R644	1-249-421-11	CARBON	2.2K	5%	1/4W F
R645	1-249-419-11	CARBON	1.5K	5%	1/4W F
R646	1-249-401-11	CARBON	47	5%	1/4W F
R647	1-249-403-11	CARBON	68	5%	1/4W F
R648	1-247-807-31	CARBON	100	5%	1/4W
R650	1-249-407-11	CARBON	150	5%	1/4W F
R651	1-249-407-11	CARBON	150	5%	1/4W F
R652	1-247-815-91	CARBON	220	5%	1/4W
R653	1-249-411-11	CARBON	330	5%	1/4W
R654	1-249-413-11	CARBON	470	5%	1/4W F
R655	1-249-415-11	CARBON	680	5%	1/4W F
R656	1-249-417-11	CARBON	1K	5%	1/4W F
R657	1-249-419-11	CARBON	1.5K	5%	1/4W F
R658	1-249-434-11	CARBON	27K	5%	1/4W
R659	1-247-843-11	CARBON	3.3K	5%	1/4W
R661	1-249-419-11	CARBON	1.5K	5%	1/4W F
R663	1-249-429-11	CARBON	10K	5%	1/4W
R664	1-249-421-11	CARBON	2.2K	5%	1/4W F
R665	1-247-887-00	CARBON	220K	5%	1/4W
R666	1-249-421-11	CARBON	2.2K	5%	1/4W F
R667	1-247-815-91	CARBON	220	5%	1/4W
R668	1-247-815-91	CARBON	220	5%	1/4W
R669	1-247-807-31	CARBON	100	5%	1/4W
R671	1-247-815-91	CARBON	220	5%	1/4W
R672	1-247-815-91	CARBON	220	5%	1/4W
R673	1-247-807-31	CARBON	100	5%	1/4W
R674	1-247-807-31	CARBON	100	5%	1/4W
R675	1-247-807-31	CARBON	100	5%	1/4W
R676	1-247-807-31	CARBON	100	5%	1/4W
R677	1-247-815-91	CARBON	220	5%	1/4W
R680	1-247-807-31	CARBON	100	5%	1/4W
R681	1-247-815-91	CARBON	220	5%	1/4W
R685	1-249-419-11	CARBON	1.5K	5%	1/4W F
R686	1-247-897-11	CARBON	560K	5%	1/4W
R687	1-249-437-11	CARBON	47K	5%	1/4W
R688	1-247-895-91	CARBON	470K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R689	1-249-419-11	CARBON	1.5K	5%	1/4W F
R690	1-247-897-11	CARBON	560K	5%	1/4W
R691	1-249-437-11	CARBON	47K	5%	1/4W
R692	1-247-895-91	CARBON	470K	5%	1/4W
R693	1-249-419-11	CARBON	1.5K	5%	1/4W F
R694	1-247-897-11	CARBON	560K	5%	1/4W
R695	1-249-437-11	CARBON	47K	5%	1/4W
R696	1-247-895-91	CARBON	470K	5%	1/4W
R698	1-247-897-11	CARBON	560K	5%	1/4W
R699	1-249-437-11	CARBON	47K	5%	1/4W
R700	1-247-895-91	CARBON	470K	5%	1/4W
R748	1-249-435-11	CARBON	33K	5%	1/4W
R749	1-247-895-91	CARBON	470K	5%	1/4W
		< SWITCH >			
S601	1-762-874-11	SWITCH, JOG			
S602	1-467-869-11	ENCODER, ROTARY (VOLUME)			
S604	1-762-196-21	SWITCH, TACT (TIMER SELECT)			
S605	1-762-196-21	SWITCH, TACT (CLOCK/TIMER SET)			
S606	1-762-196-21	SWITCH, TACT (DISPLAY/DEMO)			
S607	1-762-196-21	SWITCH, TACT (SPECTRUM ANALYZER)			
S608	1-762-196-21	SWITCH, TACT (DOLBY NR)			
S609	1-762-196-21	SWITCH, TACT (DIRECTION)			
S610	1-762-196-21	SWITCH, TACT (EDIT)			
S611	1-762-196-21	SWITCH, TACT (REPEAT)			
S612	1-762-196-21	SWITCH, TACT (PLAY MODE)			
S613	1-762-196-21	SWITCH, TACT (1/ALL DISCS)			
S614	1-762-196-21	SWITCH, TACT (SLEEP)			
S615	1-762-196-21	SWITCH, TACT (P FILE MEMORY)			
S616	1-762-196-21	SWITCH, TACT (NON-STOP)			
S617	1-762-196-21	SWITCH, TACT (LOW FREQUENCY)			
S618	1-762-196-21	SWITCH, TACT (HIGH FREQUENCY)			
S619	1-762-196-21	SWITCH, TACT (ENTER/NEXT)			
S620	1-762-196-21	SWITCH, TACT (PROLOGIC)			
S621	1-762-196-21	SWITCH, TACT (GROOVE)			
S622	1-762-196-21	SWITCH, TACT (GAME)			
S623	1-762-196-21	SWITCH, TACT (MOVIE)			
S624	1-762-196-21	SWITCH, TACT (MUSIC)			
S625	1-762-196-21	SWITCH, TACT (P FILE)			
S626	1-762-196-21	SWITCH, TACT (WAVE)			
S631	1-762-196-21	SWITCH, TACT (DSP)			
S632	1-762-196-21	SWITCH, TACT (DBFB)			
S633	1-762-196-21	SWITCH, TACT (TUNING MODE)			
S634	1-762-196-21	SWITCH, TACT (STEREO/MONO)			
S635	1-762-196-21	SWITCH, TACT (EFFECT ON/OFF)			
S636	1-762-196-21	SWITCH, TACT (KARAOKE PON/MPX)			
S637	1-762-196-21	SWITCH, TACT (TUNER/BAND)			
S638	1-762-196-21	SWITCH, TACT (LOOP)			
S639	1-762-196-21	SWITCH, TACT (FLASH)			
S640	1-762-196-21	SWITCH, TACT (TUNER MEMORY)			
S641	1-762-196-21	SWITCH, TACT (PTY)(RX100AV:AEP,UK,G)			
S642	1-762-196-21	SWITCH, TACT (FUNCTION)			
		< VIBRATOR >			
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			

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POWER

Ref. No.	Part No.	Description			Remark
*	A-4392-657-A	POWER BOARD, COMPLETE (US,CND)			
		**********************			
*	A-4392-656-A	POWER BOARD, COMPLETE (AEP,UK,G,EE,CIS)			
		**********************			
*	A-4392-655-A	POWER BOARD, COMPLETE (GR10AV)			
		**********************			
		< CAPACITOR >			
C101	1-130-781-00	FILM	0.22uF	10%	100V
					(D90AV/GR10AV/RX100AV:US,CND)
C101	1-136-169-00	FILM	0.22uF	5%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C102	1-130-781-00	FILM	0.22uF	10%	100V
					(D90AV/GR10AV/RX100AV:US,CND)
C102	1-136-169-00	FILM	0.22uF	5%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C103	1-136-169-00	FILM	0.22uF	5%	50V
C104	1-136-169-00	FILM	0.22uF	5%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V
C106	1-162-294-31	CERAMIC	0.001uF	10%	50V
C107	1-128-576-11	ELECT	100uF	20%	63V
C108	1-128-576-11	ELECT	100uF	20%	63V
C110	1-126-942-61	ELECT	1000uF	20%	25V
					(RX100AV:AEP,UK,G,EE,CIS)
C110	1-104-665-11	ELECT	100uF	20%	25V
					(D90AV/GR10AV/RX100AV:US,CND)
C151	1-128-493-11	ELECT	4700uF	20%	71V
					(D90AV/GR10AV/RX100AV:US,CND)
C151	1-126-138-11	ELECT	4700uF	20%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C152	1-128-493-11	ELECT	4700uF	20%	71V
					(D90AV/GR10AV/RX100AV:US,CND)
C152	1-126-138-11	ELECT	4700uF	20%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C153	1-128-550-11	ELECT	2200uF	20%	50V
C154	1-128-550-11	ELECT	2200uF	20%	50V
C201	1-128-582-11	ELECT	10uF	20%	100V
					(D90AV/GR10AV/RX100AV:US,CND)
C201	1-126-963-11	ELECT	4.7uF	20%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C202	1-162-292-31	CERAMIC	680PF	10%	50V
C203	1-162-286-21	CERAMIC	220PF	10%	50V
C204	1-126-967-11	ELECT	47uF	20%	50V
C205	1-126-967-11	ELECT	47uF	20%	50V
C206	1-128-560-11	ELECT	22uF	20%	100V
					(D90AV/GR10AV/RX100AV:US,CND)
C206	1-126-968-11	ELECT	100uF	20%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C208	1-126-965-11	ELECT	22uF	20%	50V
C210	1-130-493-00	MYLAR	0.068uF	5%	50V
C211	1-130-493-00	MYLAR	0.068uF	5%	50V
C225	1-162-284-31	CERAMIC	150PF	10%	50V
C226	1-162-284-31	CERAMIC	150PF	10%	50V
C228	1-164-159-21	CERAMIC	0.1uF		50V
C232	1-162-284-31	CERAMIC	150PF	10%	50V
C251	1-128-582-11	ELECT	10uF	20%	100V
					(D90AV/GR10AV/RX100AV:US,CND)
C251	1-126-963-11	ELECT	4.7uF	20%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C252	1-162-292-31	CERAMIC	680PF	10%	50V
C253	1-162-286-21	CERAMIC	220PF	10%	50V
C254	1-126-967-11	ELECT	47uF	20%	50V
C255	1-126-967-11	ELECT	47uF	20%	50V
C256	1-128-560-11	ELECT	22uF	20%	100V
					(D90AV/GR10AV/RX100AV:US,CND)
C256	1-126-968-11	ELECT	100uF	20%	50V
					(RX100AV:AEP,UK,G,EE,CIS)
C260	1-130-493-00	MYLAR	0.068uF	5%	50V
C261	1-130-493-00	MYLAR	0.068uF	5%	50V
C299	1-161-494-00	CERAMIC	0.022uF		25V
					(RX100AV:AEP,UK,G,EE,CIS)
C301	1-126-959-11	ELECT	0.47uF	20%	50V
C302	1-126-923-11	ELECT	220uF	20%	10V
C303	1-126-933-11	ELECT	100uF	20%	10V
					(D90AV/GR10AV/RX100AV:US,CND)
C303	1-126-923-11	ELECT	220uF	20%	10V
					(RX100AV:AEP,UK,G,EE,CIS)
C304	1-126-961-11	ELECT	2.2uF	20%	50V
C305	1-126-933-11	ELECT	100uF	20%	10V
C331	1-126-924-11	ELECT	330uF	20%	10V
					(D90AV/GR10AV/RX100AV:US,CND)
C331	1-126-925-11	ELECT	470uF	20%	10V
					(RX100AV:AEP,UK,G,EE,CIS)
C401	1-126-963-11	ELECT	4.7uF	20%	50V
C402	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C403	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C404	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C405	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C406	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C407	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C408	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C409	1-164-159-21	CERAMIC	0.1uF		50V
					(RX100AV:AEP,UK,G,EE,CIS)
C410	1-161-494-00	CERAMIC	0.022uF		25V
C411	1-161-494-00	CERAMIC	0.022uF		25V
C412	1-161-494-00	CERAMIC	0.022uF		25V
C413	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
* CN201	1-766-957-11	CONNECTOR, BOARD TO BOARD 20P			
		< DIODE >			
D101	8-719-510-68	DIODE D5SBA20F01			
D102	8-719-025-03	DIODE RBA-402-SL			
D103	8-719-987-63	DIODE 1N4148M			(RX100AV:AEP,UK,G,EE,CIS)
D104	8-719-200-82	DIODE 11ES2			
D105	8-719-200-82	DIODE 11ES2			
D110	8-719-200-82	DIODE 11ES2			
D111	8-719-200-82	DIODE 11ES2			
D201	8-719-815-85	DIODE 1S1585			
					(D90AV/GR10AV/RX100AV:US,CND)
D201	8-719-987-63	DIODE 1N4148M			(RX100AV:AEP,UK,G,EE,CIS)
D251	8-719-815-85	DIODE 1S1585			
					(D90AV/GR10AV/RX100AV:US,CND)
D251	8-719-987-63	DIODE 1N4148M			(RX100AV:AEP,UK,G,EE,CIS)

Ref. No.	Part No.	Description	Remark
D301	8-719-987-63	DIODE 1N4148M	
D302	8-719-987-63	DIODE 1N4148M	
D303	8-719-987-63	DIODE 1N4148M	
D321	8-719-815-85	DIODE 1S1585 (D90AV/GR10AV/RX100AV:US,CND)	
D321	8-719-987-63	DIODE 1N4148M (RX100AV:AEP,UK,G,EE,CIS)	
D331	8-719-987-63	DIODE 1N4148M	
D332	8-719-987-63	DIODE 1N4148M	
D401	8-719-987-63	DIODE 1N4148M	
D402	8-719-987-63	DIODE 1N4148M	
D403	8-719-815-85	DIODE 1S1585	
D404	8-719-815-85	DIODE 1S1585	
D405	8-719-815-85	DIODE 1S1585	
D406	8-719-815-85	DIODE 1S1585	
		< EARTH >	
* EP101	1-537-738-21	TERMINAL, EARTH	
* EP201	1-537-738-21	TERMINAL, EARTH	
		< FUSE >	
⚠F101	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)(GR10AV)	
⚠F101	1-532-465-31	FUSE, TIME-LAG (3.15A/250V) (RX100AV:AEP,UK,G,EE,CIS)	
⚠F101	1-533-690-11	FUSE, GLASS CYLINDRICAL (DIA.5) (3.15A/125V)(D90AV/RX100AV:US,CND)	
⚠F102	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)(GR10AV)	
⚠F102	1-532-465-31	FUSE, TIME-LAG (3.15A/250V) (RX100AV:AEP,UK,G,EE,CIS)	
⚠F102	1-533-690-11	FUSE, GLASS CYLINDRICAL (DIA.5) (3.15A/125V)(D90AV/RX100AV:US,CND)	
⚠F103	1-532-506-31	FUSE, TIME-LAG (6.3A/250V) (GR10AV/RX100AV:AEP,UK,G,EE,CIS)	
⚠F103	1-533-310-11	FUSE, GLASS CYLINDRICAL (DIA.5) (6.3A/125V)(D90AV/RX100AV:US,CND)	
⚠F104	1-532-506-31	FUSE, TIME-LAG (6.3A/250V) (GR10AV/RX100AV:AEP,UK,G,EE,CIS)	
⚠F104	1-533-310-11	FUSE, GLASS CYLINDRICAL (DIA.5) (6.3A/125V)(D90AV/RX100AV:US,CND)	
		< FUSE HOLDER >	
FH101	1-533-233-21	HOLDER, FUSE	
FH102	1-533-233-21	HOLDER, FUSE	
FH103	1-533-233-21	HOLDER, FUSE	
FH104	1-533-233-21	HOLDER, FUSE	
FH105	1-533-233-21	HOLDER, FUSE	
FH106	1-533-233-21	HOLDER, FUSE	
FH107	1-533-233-21	HOLDER, FUSE	
FH108	1-533-233-21	HOLDER, FUSE	
		< IC >	
IC201	8-749-921-68	IC STK-4231MK2 (D90AV/RX100AV:US,CND)	
IC201	8-749-922-65	IC STK-4221MK2 (GR10AV)	
IC201	8-749-900-34	IC STK-4182MK2 (RX100AV:AEP,UK,G,EE,CIS)	
IC301	8-759-111-68	IC UPC1237HA	
		< COIL >	
L401	1-420-872-00	COIL, AIR-CORE (RX100AV:AEP,UK,G,EE,CIS)	
L402	1-420-872-00	COIL, AIR-CORE (RX100AV:AEP,UK,G,EE,CIS)	
L403	1-420-872-00	COIL, AIR-CORE (RX100AV:AEP,UK,G,EE,CIS)	

Ref. No.	Part No.	Description	Remark
L404	1-420-872-00	COIL, AIR-CORE (RX100AV:AEP,UK,G,EE,CIS)	
		< TRANSISTOR >	
Q111	8-729-900-80	TRANSISTOR DTC114ES (RX100AV:AEP,UK,G,EE,CIS)	
Q112	8-729-900-80	TRANSISTOR DTC114ES (RX100AV:AEP,UK,G,EE,CIS)	
Q113	8-729-040-20	TRANSISTOR RT1P137L-TP (RX100AV:AEP,UK,G,EE,CIS)	
Q201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q301	8-729-900-89	TRANSISTOR DTC144ES	
Q323	8-729-900-63	TRANSISTOR DTA124ES	
Q331	8-729-900-89	TRANSISTOR DTC144ES	
Q401	8-729-900-80	TRANSISTOR DTC114ES	
Q402	8-729-904-39	TRANSISTOR DTC114TS	
Q403	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q404	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q405	8-729-900-80	TRANSISTOR DTC114ES	
		< RESISTOR >	
⚠R101	1-219-122-91	FUSIBLE 0.33 5% 1/4W	F
⚠R103	1-216-449-11	METAL OXIDE 56 5% 2W (RX100AV:AEP,UK,G,EE,CIS)	F
R111	1-249-429-11	CARBON 10K 5% 1/4W (RX100AV:AEP,UK,G,EE,CIS)	
R201	1-249-417-11	CARBON 1K 5% 1/4W	F
R202	1-249-437-11	CARBON 47K 5% 1/4W	
R203	1-249-413-11	CARBON 470 5% 1/4W (D90AV/GR10AV/RX100AV:US,CND)	F
R203	1-249-415-11	CARBON 680 5% 1/4W (RX100AV:AEP,UK,G,EE,CIS)	F
R204	1-249-437-11	CARBON 47K 5% 1/4W	
R206	1-260-107-11	CARBON 4.7K 5% 1/2W (D90AV/GR10AV/RX100AV:US,CND)	
R206	1-260-105-11	CARBON 3.3K 5% 1/2W (RX100AV:AEP,UK,G,EE,CIS)	
R208	1-260-107-11	CARBON 4.7K 5% 1/2W (D90AV/GR10AV/RX100AV:US,CND)	
R208	1-260-105-11	CARBON 3.3K 5% 1/2W (RX100AV:AEP,UK,G,EE,CIS)	
⚠R209	1-212-881-11	FUSIBLE 100 5% 1/4W	F
⚠R210	1-217-156-00	WIREWOUND 0.22 10% 5W (D90AV/GR10AV/RX100AV:US,CND)	
⚠R210	1-217-151-00	METAL PLATE 0.22 10% 2W (RX100AV:AEP,UK,G,EE,CIS)	
R211	1-249-417-11	CARBON 1K 5% 1/4W	F
R212	1-249-431-11	CARBON 15K 5% 1/4W	
R213	1-249-441-11	CARBON 100K 5% 1/4W	
R215	1-260-102-11	CARBON 1.8K 5% 1/2W (D90AV/RX100AV:US,CND)	
R215	1-260-103-11	CARBON 2.2K 5% 1/2W (GR10AV)	
R215	1-260-099-11	CARBON 1K 5% 1/2W (RX100AV:AEP,UK,G,EE,CIS)	
R216	1-260-102-11	CARBON 1.8K 5% 1/2W (D90AV/RX100AV:US,CND)	
R216	1-260-103-11	CARBON 2.2K 5% 1/2W (GR10AV)	

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POWER SENSOR

Ref. No.	Part No.	Description				Remark
R216	1-260-099-11	CARBON	1K	5%	1/2W	(RX100AV:AEP,UK,G,EE,CIS)
R218	1-260-076-11	CARBON	10	5%	1/2W	
R227	1-249-425-11	CARBON	4.7K	5%	1/4W	F
⚠R250	1-217-637-00	FUSIBLE	1	5%	1/4W	F
R251	1-249-417-11	CARBON	1K	5%	1/4W	F
R252	1-249-437-11	CARBON	47K	5%	1/4W	
R253	1-249-413-11	CARBON	470	5%	1/4W	F (D90AV/GR10AV/RX100AV:US,CND)
R253	1-249-415-11	CARBON	680	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R254	1-249-437-11	CARBON	47K	5%	1/4W	
R256	1-260-107-11	CARBON	4.7K	5%	1/2W	(D90AV/GR10AV/RX100AV:US,CND)
R256	1-260-105-11	CARBON	3.3K	5%	1/2W	(RX100AV:AEP,UK,G,EE,CIS)
R258	1-260-107-11	CARBON	4.7K	5%	1/2W	(D90AV/GR10AV/RX100AV:US,CND)
R258	1-260-105-11	CARBON	3.3K	5%	1/2W	(RX100AV:AEP,UK,G,EE,CIS)
⚠R259	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R260	1-217-156-00	WIREWOUND	0.22	10%	5W	(D90AV/GR10AV/RX100AV:US,CND)
⚠R260	1-217-151-00	METAL PLATE	0.22	10%	2W	(RX100AV:AEP,UK,G,EE,CIS)
R261	1-249-417-11	CARBON	1K	5%	1/4W	F
R262	1-249-431-11	CARBON	15K	5%	1/4W	
R263	1-249-441-11	CARBON	100K	5%	1/4W	
R268	1-260-076-11	CARBON	10	5%	1/2W	
R272	1-260-093-11	CARBON	330	5%	1/2W	
R273	1-260-093-11	CARBON	330	5%	1/2W	
R274	1-260-093-11	CARBON	330	5%	1/2W	
R275	1-260-093-11	CARBON	330	5%	1/2W	
R301	1-249-441-11	CARBON	100K	5%	1/4W	
R302	1-247-854-11	CARBON	9.1K	5%	1/4W	(D90AV/GR10AV/RX100AV:US,CND)
R302	1-249-425-11	CARBON	4.7K	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R303	1-247-854-11	CARBON	9.1K	5%	1/4W	(D90AV/GR10AV/RX100AV:US,CND)
R303	1-249-425-11	CARBON	4.7K	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R304	1-249-429-11	CARBON	10K	5%	1/4W	
R305	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R306	1-249-441-11	CARBON	100K	5%	1/4W	
R307	1-247-863-91	CARBON	22K	5%	1/4W	
R308	1-247-863-91	CARBON	22K	5%	1/4W	
R309	1-247-791-91	CARBON	22	5%	1/4W	
R310	1-249-437-11	CARBON	47K	5%	1/4W	(D90AV/GR10AV/RX100AV:US,CND)
R310	1-249-435-11	CARBON	33K	5%	1/4W	(RX100AV:AEP,UK,G,EE,CIS)
R311	1-249-429-11	CARBON	10K	5%	1/4W	
R312	1-249-429-11	CARBON	10K	5%	1/4W	
R314	1-249-439-11	CARBON	68K	5%	1/4W	
R315	1-249-439-11	CARBON	68K	5%	1/4W	
R316	1-249-437-11	CARBON	47K	5%	1/4W	
R317	1-249-437-11	CARBON	47K	5%	1/4W	
R331	1-247-889-00	CARBON	270K	5%	1/4W	(D90AV/RX100AV:US,CND)
R331	1-247-890-11	CARBON	300K	5%	1/4W	(GR10AV)
R331	1-247-883-00	CARBON	150K	5%	1/4W	(RX100AV:AEP,UK,G,EE,CIS)
R332	1-249-429-11	CARBON	10K	5%	1/4W	
R333	1-249-431-11	CARBON	15K	5%	1/4W	(D90AV/GR10AV/RX100AV:US,CND)
R333	1-249-429-11	CARBON	10K	5%	1/4W	(RX100AV:AEP,UK,G,EE,CIS)
R334	1-249-417-11	CARBON	1K	5%	1/4W	F
⚠R405	1-215-886-11	METAL OXIDE	100	5%	2W	F
⚠R407	1-215-886-11	METAL OXIDE	100	5%	2W	F
R408	1-249-437-11	CARBON	47K	5%	1/4W	
R409	1-249-440-11	CARBON	82K	5%	1/4W	
R410	1-249-437-11	CARBON	47K	5%	1/4W	
R411	1-249-437-11	CARBON	47K	5%	1/4W	
R412	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R413	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R414	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R415	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R416	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R417	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R418	1-249-393-11	CARBON	10	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R419	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R420	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R421	1-249-393-11	CARBON	10	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R422	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
R423	1-249-389-11	CARBON	4.7	5%	1/4W	F (RX100AV:AEP,UK,G,EE,CIS)
		< RELAY >				
⚠RY101	1-755-195-11	RELAY (RX100AV:AEP,UK,G,EE,CIS)				
RY401	1-755-142-11	RELAY				
RY402	1-755-141-11	RELAY (D90AV/GR10AV/RX100AV:US,CND)				
RY402	1-755-142-11	RELAY (RX100AV:AEP,UK,G,EE,CIS)				
		< TERMINAL >				
TM401	1-537-842-11	TERMINAL BOARD (FRONT SPEAKER)				
TM402	1-537-510-11	TERMINAL BOARD (SPEAKER) (6P)				(SURROUND SPEAKER)

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*	1-658-576-11	SENSOR BOARD *************
		< IC >
IC702	8-749-924-18	PHOTO INTERRUPTER RPI-1391
IC703	8-749-924-30	PHOTO REFLECTOR GP2S28

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		< RESISTOR >	
R701	1-249-416-11	CARBON 820 5%	1/4W F
R702	1-249-407-11	CARBON 150 5%	1/4W F

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Ref. No.	Part No.	Description	Remark
*	A-4392-662-A	SURROUND BOARD, COMPLETE *************************	
		(EXCEPT AEP,UK,G,EE,CIS)	
*	A-4392-663-A	SURROUND BOARD, COMPLETE *************************	
		(AEP,UK,G,EE,CIS)	
		< CAPACITOR >	
C601	1-126-963-11	ELECT 4.7uF 20%	50V
C602	1-162-292-31	CERAMIC 680PF 10%	50V
C603	1-162-286-21	CERAMIC 220PF 10%	50V
C604	1-126-967-11	ELECT 47uF 20%	50V
C605	1-126-967-11	ELECT 47uF 20%	50V
C606	1-126-968-11	ELECT 100uF 20%	50V
C608	1-126-965-11	ELECT 22uF 20%	50V
C610	1-130-493-00	MYLAR 0.068uF 5%	50V
C611	1-130-493-00	MYLAR 0.068uF 5%	50V
C613	1-161-494-00	CERAMIC 0.022uF	25V
		(AEP,UK,G,EE,CIS)	
C620	1-126-923-11	ELECT 220uF 20%	10V
C625	1-162-284-31	CERAMIC 150PF 10%	50V
C626	1-162-284-31	CERAMIC 150PF 10%	50V
		(AEP,UK,G,EE,CIS)	
C628	1-164-159-21	CERAMIC 0.1uF	50V
C651	1-126-963-11	ELECT 4.7uF 20%	50V
C652	1-162-292-31	CERAMIC 680PF 10%	50V
C653	1-162-286-21	CERAMIC 220PF 10%	50V
C654	1-126-967-11	ELECT 47uF 20%	50V
C655	1-126-967-11	ELECT 47uF 20%	50V
C656	1-126-968-11	ELECT 100uF 20%	50V
C660	1-130-493-00	MYLAR 0.068uF 5%	50V
C661	1-130-493-00	MYLAR 0.068uF 5%	50V
		< CONNECTOR >	
CN601	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
CN602	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
CN603	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
		< DIODE >	
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D604	8-719-987-63	DIODE 1N4148M	
D651	8-719-987-63	DIODE 1N4148M	
		< EARTH >	
* EP601	1-537-738-21	TERMINAL, EARTH (AEP,UK,G,EE,CIS)	
* EP602	1-537-738-21	TERMINAL, EARTH	
		< IC >	
IC601	8-749-900-96	IC STK-4142MK2	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q601	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q651	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q670	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q671	8-729-900-36	TRANSISTOR DTC124ES	
		< RESISTOR >	
R601	1-249-417-11	CARBON 1K 5%	1/4W F
R602	1-249-437-11	CARBON 47K 5%	1/4W
R603	1-249-415-11	CARBON 680 5%	1/4W F
R604	1-249-437-11	CARBON 47K 5%	1/4W
R605	1-260-103-11	CARBON 2.2K 5%	1/2W
R606	1-260-103-11	CARBON 2.2K 5%	1/2W
⚠R609	1-212-881-11	FUSIBLE 100 5%	1/4W F
⚠R610	1-217-151-00	METAL PLATE 0.22 10%	2W
R611	1-249-417-11	CARBON 1K 5%	1/4W F
R612	1-249-431-11	CARBON 15K 5%	1/4W
R613	1-249-441-11	CARBON 100K 5%	1/4W
R614	1-260-099-11	CARBON 1K 5%	1/2W
R616	1-260-099-11	CARBON 1K 5%	1/2W
R618	1-260-076-11	CARBON 10 5%	1/2W
R627	1-249-429-11	CARBON 10K 5%	1/4W
R628	1-247-881-00	CARBON 120K 5%	1/4W
R630	1-249-429-11	CARBON 10K 5%	1/4W
R642	1-249-429-11	CARBON 10K 5%	1/4W
⚠R644	1-217-637-00	FUSIBLE 1 5%	1/4W F
R651	1-249-417-11	CARBON 1K 5%	1/4W F
R652	1-249-437-11	CARBON 47K 5%	1/4W
R653	1-249-415-11	CARBON 680 5%	1/4W F
R654	1-249-437-11	CARBON 47K 5%	1/4W
R655	1-260-103-11	CARBON 2.2K 5%	1/2W
R656	1-260-103-11	CARBON 2.2K 5%	1/2W
⚠R659	1-212-881-11	FUSIBLE 100 5%	1/4W F
⚠R660	1-217-151-00	METAL PLATE 0.22 10%	2W
R661	1-249-417-11	CARBON 1K 5%	1/4W F
R662	1-249-431-11	CARBON 15K 5%	1/4W
R663	1-249-441-11	CARBON 100K 5%	1/4W
R668	1-260-076-11	CARBON 10 5%	1/2W
R670	1-249-441-11	CARBON 100K 5%	1/4W
R671	1-249-441-11	CARBON 100K 5%	1/4W
R672	1-249-436-11	CARBON 39K 5%	1/4W
		< THERMISTOR(POSITIVE) >	
THP670	1-807-796-11	THERMISTOR	

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Ref. No.	Part No.	Description	Remark
*	A-4303-570-A	TCB BOARD, COMPLETE (EE,CIS) ***************************	
		< CAPACITOR >	
C1	1-163-141-00	CERAMIC CHIP 0.001uF 5%	50V
C2	1-126-967-11	ELECT 47uF 20%	16V
C3	1-163-038-91	CERAMIC CHIP 0.1uF	25V
C5	1-163-031-11	CERAMIC CHIP 0.01uF	50V
C6	1-163-038-91	CERAMIC CHIP 0.1uF	25V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

TCB

Ref. No.	Part No.	Description			Remark
C7	1-101-004-00	CERAMIC	0.01uF		50V
C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C23	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C26	1-126-967-11	ELECT	47uF	20%	16V
C28	1-126-967-11	ELECT	47uF	20%	16V
C29	1-162-306-11	CERAMIC	0.01uF	30%	16V
C30	1-126-961-11	ELECT	2.2uF	20%	50V
C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C47	1-126-967-11	ELECT	47uF	20%	16V
C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C49	1-126-959-11	ELECT	0.47uF	20%	50V
C50	1-126-960-11	ELECT	1.0uF	20%	50V
C51	1-126-960-11	ELECT	1.0uF	20%	50V
C52	1-126-963-11	ELECT	4.7uF	20%	50V
C53	1-126-964-11	ELECT	10uF	20%	50V
C54	1-104-396-11	ELECT	10uF	20%	16V
C55	1-104-396-11	ELECT	10uF	20%	16V
C56	1-104-396-11	ELECT	10uF	20%	16V
C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C59	1-163-989-11	CERAMIC CHIP	33000PF	10%	25V
C60	1-163-989-11	CERAMIC CHIP	33000PF	10%	25V
C61	1-126-301-11	ELECT	1.0uF	20%	50V
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C63	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C64	1-126-967-11	ELECT	47uF	20%	16V
C65	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C66	1-126-162-11	ELECT	3.3uF	20%	50V
C67	1-126-933-11	ELECT	100uF	20%	10V
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V
C71	1-162-306-11	CERAMIC	0.01uF	30%	16V
C72	1-126-967-11	ELECT	47uF	20%	16V
C120	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C1701	1-162-294-31	CERAMIC CHIP	1000PF	10%	50V
C1702	1-130-014-00	FILM	470PF	5%	50V
C1703	1-126-959-11	ELECT	0.47uF	20%	50V
C1704	1-126-959-11	ELECT	0.47uF	20%	50V

Ref. No.	Part No.	Description			Remark
C1705	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C1706	1-126-960-11	ELECT	1.0uF	20%	50V
C1707	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C1710	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C1711	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C1712	1-130-736-11	FILM	0.01uF	5%	50V
C1713	1-130-736-11	FILM	0.01uF	5%	50V
C1714	1-126-960-11	ELECT	1.0uF	20%	50V
C1715	1-126-960-11	ELECT	1.0uF	20%	50V
C1716	1-126-960-11	ELECT	1.0uF	20%	50V
C1719	1-126-967-11	ELECT	47uF	20%	16V
C1720	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C1723	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C1724	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C1725	1-126-967-11	ELECT	47uF	20%	16V
C1726	1-126-960-11	ELECT	1.0uF	20%	50V
C1727	1-126-960-11	ELECT	1.0uF	20%	50V
C1728	1-126-966-11	ELECT	33uF	20%	16V
		< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC			
CF3	1-567-389-11	FILTER, CERAMIC			
CF3	1-760-393-11	FILTER, CERAMIC			
		< CONNECTOR >			
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P			
		< TRIMMER >			
CT1701	1-141-444-11	CAP, CERAMIC TRIMMER 50PF			
		< DIODE >			
D21	8-719-976-99	DIODE DTZ5.1B			
D41	8-719-016-74	DIODE 1SS352			
D42	8-719-016-74	DIODE 1SS352			
D43	8-719-016-74	DIODE 1SS352			
D1701	8-719-016-74	DIODE 1SS352			
D1702	8-719-016-74	DIODE 1SS352			
D1703	8-719-987-63	DIODE 1N4148			
D1704	8-719-016-74	DIODE 1SS352			
		< FRONTEND >			
FE1	1-693-335-11	FRONT END (3 GANG)			
FE2	1-233-514-11	ENCAPSULATED COMPONENT			
		< IC >			
IC21	8-759-288-54	IC LC72130			
IC41	8-759-176-03	IC LA1835			
IC1701	8-759-063-04	IC IR3R42			
IC1702	8-759-140-53	IC uPD4053BC			
		< IFT >			
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)			
		< JUMPER RESISTOR >			
JR2	1-216-295-91	METAL CHIP	0	5%	1/10W

Ref. No.	Part No.	Description			Remark
JR6	1-216-295-91	METAL CHIP	0	5%	1/10W
JR8	1-216-295-91	METAL CHIP	0	5%	1/10W
JR9	1-216-295-91	METAL CHIP	0	5%	1/10W
JR46	1-216-296-91	METAL CHIP	0	5%	1/8W
JR47	1-216-295-91	METAL CHIP	0	5%	1/10W
JR48	1-216-295-91	METAL CHIP	0	5%	1/10W
JR49	1-216-296-91	METAL CHIP	0	5%	1/8W
JR51	1-216-295-91	METAL CHIP	0	5%	1/10W
JR52	1-216-295-91	METAL CHIP	0	5%	1/10W
JR53	1-216-296-91	METAL CHIP	0	5%	1/8W
JR54	1-216-295-91	METAL CHIP	0	5%	1/10W
JR1701	1-216-295-91	METAL CHIP	0	5%	1/10W
JR1702	1-216-295-91	METAL CHIP	0	5%	1/10W
JR1703	1-216-295-91	METAL CHIP	0	5%	1/10W
JR1704	1-216-295-91	METAL CHIP	0	5%	1/10W
JR1705	1-216-295-91	METAL CHIP	0	5%	1/10W

< COIL >

Ref. No.	Part No.	Description		Remark
L3	1-410-521-11	MICRO INDUCTOR	100uH	
L41	1-407-500-00	MICRO INDUCTOR	4.7mH	
L1701	1-409-497-11	COIL (FILTER)		

< FILTER >

Ref. No.	Part No.	Description	Remark
LPF41	1-239-845-11	FILTER, LOW PASS	
LPF42	1-239-845-11	FILTER, LOW PASS	

< TRANSISTOR >

Ref. No.	Part No.	Description		Remark
Q1	8-729-201-27	TRANSISTOR	2SC2715Y	
Q2	8-729-201-27	TRANSISTOR	2SC2715Y	
Q3	8-729-201-27	TRANSISTOR	2SC2715Y	
Q4	8-729-201-27	TRANSISTOR	2SC2715Y	
Q5	8-729-424-08	TRANSISTOR	UN2111	
Q9	8-729-216-22	TRANSISTOR	2SA812-M5M6	
Q11	8-729-421-22	TRANSISTOR	UN2211	
Q12	8-729-421-22	TRANSISTOR	UN2211	
Q13	8-729-421-22	TRANSISTOR	UN2211	
Q14	8-729-421-22	TRANSISTOR	UN2211	
Q1701	8-729-424-08	TRANSISTOR	UN2111	
Q1702	8-729-907-00	TRANSISTOR	DTC114EU	
Q1703	8-729-421-22	TRANSISTOR	UN2211	

< RESISTOR >

Ref. No.	Part No.	Description			Remark
R1	1-249-401-11	CARBON	47	5%	1/4W F
R2	1-216-037-00	METAL CHIP	330	5%	1/10W
R3	1-216-037-00	METAL CHIP	330	5%	1/10W
R5	1-216-037-00	METAL CHIP	330	5%	1/10W
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W
R7	1-216-037-00	METAL CHIP	330	5%	1/10W
R8	1-216-037-00	METAL CHIP	330	5%	1/10W
R9	1-216-081-00	METAL CHIP	22K	5%	1/10W
R10	1-216-037-00	METAL CHIP	330	5%	1/10W
R11	1-216-081-00	METAL CHIP	22K	5%	1/10W
R12	1-216-037-00	METAL CHIP	330	5%	1/10W
R13	1-216-037-00	METAL CHIP	330	5%	1/10W
R14	1-216-081-00	METAL CHIP	22K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W
R21	1-249-417-11	CARBON	1.0K	5%	1/4W
R22	1-249-417-11	CARBON	1.0K	5%	1/4W
R23	1-249-417-11	CARBON	1.0K	5%	1/4W
R24	1-247-807-31	CARBON	100	5%	1/4W
R25	1-249-417-11	CARBON	1.0K	5%	1/4W F
R26	1-249-437-11	CARBON	47K	5%	1/4W
R27	1-249-429-11	CARBON	10K	5%	1/4W
R28	1-249-417-11	CARBON	1.0K	5%	1/4W F
R29	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R30	1-216-186-00	METAL CHIP	330	5%	1/8W
R31	1-216-025-91	METAL CHIP	100	5%	1/10W
R32	1-249-425-11	CARBON	4.7K	5%	1/4W F
R33	1-249-425-11	CARBON	4.7K	5%	1/4W F
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R35	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R36	1-216-025-91	METAL CHIP	100	5%	1/10W
R37	1-216-073-00	METAL CHIP	10K	5%	1/10W
R38	1-216-089-91	METAL CHIP	47K	5%	1/10W
R39	1-249-429-11	CARBON	10K	5%	1/4W
R42	1-216-073-00	METAL CHIP	10K	5%	1/10W
R43	1-216-042-00	METAL CHIP	510	5%	1/10W
R44	1-216-013-00	METAL CHIP	33	5%	1/10W
R45	1-247-843-11	CARBON	3.3K	5%	1/4W F
R46	1-216-073-00	METAL CHIP	10K	5%	1/10W
R47	1-216-097-91	METAL CHIP	100K	5%	1/10W
R48	1-249-417-11	CARBON	1.0K	5%	1/4W F
R49	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R50	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R51	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R53	1-249-429-11	CARBON	10K	5%	1/4W
R55	1-216-162-00	METAL CHIP	33	5%	1/8W
R56	1-249-393-11	CARBON	10	5%	1/4W F
R91	1-216-295-91	METAL CHIP	0	5%	1/10W
R92	1-216-073-00	METAL CHIP	10K	5%	1/10W
R94	1-216-073-00	METAL CHIP	10K	5%	1/10W
R99	1-249-399-11	CARBON	33	5%	1/4W F
R1701	1-216-081-00	METAL CHIP	22K	5%	1/10W
R1702	1-216-085-00	METAL CHIP	33K	5%	1/10W
R1703	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R1704	1-216-075-00	METAL CHIP	12K	5%	1/10W
R1705	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R1706	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R1707	1-216-097-91	METAL CHIP	100K	5%	1/10W
R1708	1-216-095-00	METAL CHIP	82K	5%	1/10W
R1709	1-216-089-91	METAL CHIP	47K	5%	1/10W
R1710	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1711	1-249-429-11	CARBON	10K	5%	1/4W
R1714	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R1715	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R1716	1-216-097-91	METAL CHIP	100K	5%	1/10W
R1717	1-216-097-91	METAL CHIP	100K	5%	1/10W
R1718	1-249-429-11	CARBON	10K	5%	1/4W
R1719	1-216-097-91	METAL CHIP	100K	5%	1/10W
R1720	1-249-434-11	CARBON	27K	5%	1/4W
R1721	1-216-073-00	METAL CHIP	10K	5%	1/10W

< VARIABLE RESISTOR >

Ref. No.	Part No.	Description	Remark
RV41	1-238-601-11	RES, ADJ, CARBON 22K	

TCB

Ref. No.	Part No.	Description			Remark
RV42	1-238-600-11	RES, ADJ, CARBON 10K			
RV1701	1-238-600-11	RES, ADJ, CARBON 10K			
RV1702	1-238-599-11	RES, ADJ, CARBON 4.7K			
		< TERMINAL >			
TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)			
		< VIBRATOR >			
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)			
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)			
X42	1-527-981-00	FILTER, CERAMIC (450kHz)			
X43	1-577-075-11	OSCILLATOR, CERAMIC (456kHz)			

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* A-4303-571-A TCB BOARD, COMPLETE (AEP,UK,G)

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< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C1	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C2	1-126-967-11	ELECT	47uF	20%	16V
C3	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C5	1-163-031-11	CERAMIC CHIP	0,01uF		50V
C6	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C23	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C26	1-126-967-11	ELECT	47uF	20%	16V
C28	1-126-967-11	ELECT	47uF	20%	16V
C29	1-162-306-11	CERAMIC	0.01uF	30%	16V
C30	1-126-961-11	ELECT	2.2uF	20%	100V
C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C47	1-126-967-11	ELECT	47uF	20%	16V
C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C49	1-126-959-11	ELECT	0.47uF	20%	50V
C50	1-126-960-11	ELECT	1.0uF	20%	50V
C51	1-126-960-11	ELECT	1.0uF	20%	50V
C52	1-126-963-11	ELECT	4.7uF	20%	50V
C53	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark	
C54	1-104-396-11	ELECT	10uF	20%	16V	
C55	1-104-396-11	ELECT	10uF	20%	16V	
C56	1-104-396-11	ELECT	10uF	20%	16V	
C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V	
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V	
C61	1-126-301-11	ELECT	1uF	20%	50V	
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	
C63	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C64	1-126-967-11	ELECT	47uF	20%	16V	
C65	1-163-031-11	CERAMIC CHIP	0.01uF		50V	
C66	1-126-162-11	ELECT	3.3uF	20%	50V	
C67	1-126-933-11	ELECT	100uF	20%	10V	
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C71	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C72	1-126-967-11	ELECT	47uF	20%	16V	
C120	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1751	1-164-159-11	CERAMIC	0.1uF		50V	F
C1752	1-126-967-11	ELECT	47uF	20%	16V	
C1753	1-126-964-11	ELECT	10uF	20%	50V	
C1754	1-162-291-31	CERAMIC	560PF	10%	50V	
C1755	1-126-964-11	ELECT	10uF	20%	50V	
C1756	1-126-961-11	ELECT	2.2uF	20%	50V	
C1757	1-162-288-31	CERAMIC	330PF	10%	50V	
C1758	1-163-031-11	CERAMIC CHIP	0.01uF		50V	
C1759	1-163-135-00	CERAMIC CHIP	560PF	5%	50V	
C1760	1-163-031-11	CERAMIC CHIP	0.01uF		50V	
C1761	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C1762	1-163-249-11	CERAMIC CHIP	82PF	5%	50V	
		< FILTER >				
CF1	1-579-374-71	FILTER, CERAMIC				
CF2	1-760-393-11	FILTER, CERAMIC				
CF3	1-760-393-11	FILTER, CERAMIC				
		< CONNECTOR >				
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P				
		< DIODE >				
D21	8-719-976-99	DIODE UDZ-TE-17-5.1B				
D41	8-719-016-74	DIODE 1SS352-TPH3				
D42	8-719-987-63	DIODE 1N4148M				
D1751	8-719-016-74	DIODE 1SS352-TPH3				
		< FRONT-END >				
FE1	1-693-357-11	FRONT END (4 GANG)				
FE2	1-233-514-11	ENCAPSULATED COMPONENT				
		< IC >				
IC21	8-759-288-54	IC LC72130				
IC41	8-759-176-03	IC LA1835				
IC1751	8-759-634-51	IC M5218AP				
IC1752	8-759-450-86	IC BU1922				
		< IFT >				
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)				

Ref. No.	Part No.	Description			Remark
		< JUMPER RESISTOR >			
JR2	1-216-295-11	METAL CHIP	0	5%	1/10W
JR6	1-216-295-11	METAL CHIP	0	5%	1/10W
JR8	1-216-295-11	METAL CHIP	0	5%	1/10W
JR9	1-216-295-11	METAL CHIP	0	5%	1/10W
JR46	1-216-296-11	METAL CHIP	0	5%	1/8W
JR47	1-216-295-11	METAL CHIP	0	5%	1/10W
JR48	1-216-295-11	METAL CHIP	0	5%	1/10W
JR49	1-216-296-11	METAL CHIP	0	5%	1/8W
JR51	1-216-295-11	METAL CHIP	0	5%	1/10W
JR52	1-216-295-11	METAL CHIP	0	5%	1/10W
JR53	1-216-296-11	METAL CHIP	0	5%	1/8W
JR54	1-216-295-11	METAL CHIP	0	5%	1/10W
		< COIL >			
L2	1-414-142-11	MICRO INDUCTOR		1uH	
L3	1-410-521-11	MICRO INDUCTOR		100uH	
L4	1-410-515-11	INDUCTOR		33uH	
L41	1-407-500-00	MICRO INDUCTOR		4.7mH	
L1751	1-410-521-11	MICRO INDUCTOR		100uH	
		< FILTER >			
LPF41	1-239-845-11	FILTER, LOW PASS			
LPF42	1-239-845-11	FILTER, LOW PASS			
		< TRANSISTOR >			
Q1	8-729-201-27	TRANSISTOR	2SC2715Y-TE85L		
Q2	8-729-201-27	TRANSISTOR	2SC2715Y-TE85L		
Q3	8-729-201-27	TRANSISTOR	2SC2715Y-TE85L		
Q4	8-729-201-27	TRANSISTOR	2SC2715Y-TE85L		
Q5	8-729-424-08	TRANSISTOR	UN2111		
Q9	8-729-216-22	TRANSISTOR	2SA812-M5M6		
Q11	8-729-421-22	TRANSISTOR	UN2211		
Q12	8-729-421-22	TRANSISTOR	UN2211		
Q13	8-729-421-22	TRANSISTOR	UN2211		
Q14	8-729-421-22	TRANSISTOR	UN2211		
		< RESISTOR >			
R1	1-249-401-11	CARBON	47	5%	1/4W F
R2	1-216-037-00	METAL CHIP	330	5%	1/10W
R3	1-216-037-00	METAL CHIP	330	5%	1/10W
R5	1-216-037-00	METAL CHIP	330	5%	1/10W
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W
R7	1-216-037-00	METAL CHIP	330	5%	1/10W
R8	1-216-037-00	METAL CHIP	330	5%	1/10W
R9	1-216-081-00	METAL CHIP	22K	5%	1/10W
R10	1-216-037-00	METAL CHIP	330	5%	1/10W
R11	1-216-081-00	METAL CHIP	22K	5%	1/10W
R12	1-216-037-00	METAL CHIP	330	5%	1/10W
R13	1-216-037-00	METAL CHIP	330	5%	1/10W
R14	1-216-081-00	METAL CHIP	22K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W
R21	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R22	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R23	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R24	1-216-025-91	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R25	1-249-417-11	CARBON	1K	5%	1/4W F
R26	1-249-437-11	CARBON	47K	5%	1/4W
R27	1-249-429-11	CARBON	10K	5%	1/4W
R28	1-249-417-11	CARBON	1K	5%	1/4W F
R29	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R30	1-216-186-00	METAL CHIP	330	5%	1/8W
R31	1-216-025-91	METAL CHIP	100	5%	1/10W
R32	1-249-425-11	CARBON	4.7K	5%	1/4W F
R33	1-249-425-11	CARBON	4.7K	5%	1/4W F
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R35	1-216-214-00	METAL CHIP	4.7K	5%	1/8W
R36	1-216-025-91	METAL CHIP	100	5%	1/10W
R37	1-216-073-00	METAL CHIP	10K	5%	1/10W
R38	1-216-089-91	METAL CHIP	47K	5%	1/10W
R39	1-249-429-11	CARBON	10K	5%	1/4W
R42	1-216-073-00	METAL CHIP	10K	5%	1/10W
R43	1-216-042-00	METAL CHIP	510	5%	1/10W
R44	1-216-013-00	METAL CHIP	33	5%	1/10W
R45	1-247-843-11	CARBON	3.3K	5%	1/4W F
R46	1-216-073-00	METAL CHIP	10K	5%	1/10W
R47	1-216-097-91	METAL CHIP	100K	5%	1/10W
R48	1-249-417-11	CARBON	1K	5%	1/4W F
R49	1-216-049-91	METAL CHIP	1.0K	5%	1/10W
R50	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R51	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R53	1-249-429-11	CARBON	10K	5%	1/4W
R55	1-216-162-00	METAL CHIP	33	5%	1/8W
R56	1-249-393-11	CARBON	10	5%	1/4W F
R91	1-216-295-11	METAL CHIP	0	5%	1/10W
R92	1-216-073-00	METAL CHIP	10K	5%	1/10W
R99	1-249-399-11	CARBON	33	5%	1/4W
R1751	1-247-807-31	CARBON	100	5%	1/4W
R1752	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1753	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R1754	1-216-097-91	METAL CHIP	100K	5%	1/10W
R1755	1-216-097-91	METAL CHIP	100K	5%	1/10W
R1756	1-249-401-11	CARBON	47	5%	1/4W F
R1757	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< VARIABLE RESISTOR >			
RV41	1-238-601-11	RES, ADJ, CARBON 22K			
RV42	1-238-600-11	RES, ADJ, CARBON 10K			
		< TERMINAL >			
TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)			
		< VIBRATOR >			
X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)			
X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)			
X42	1-527-981-00	FILTER, CERAMIC (450KHz)			
X43	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)			
X1751	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)			

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TC SW TRANS

Ref. No.	Part No.	Description	Remark
*	A-4392-652-A	TC SW BOARD, COMPLETE *********************	
		< CONNECTOR >	
CN607	1-506-486-11	PIN, CONNECTOR 7P	
		< DIODE >	
D634	8-719-063-92	DIODE SLR325MC-M-T31-NP (▷)(DECK B)	
D635	8-719-063-92	DIODE SLR325MC-M-T31-NP (◁)(DECK B)	
D636	8-719-063-91	DIODE SLR325DC-P-T32 (▮▮ PAUSE)	
D637	8-719-063-93	DIODE SLR325VC-N-T32 (● REC)	
D638	8-719-063-92	DIODE SLR325MC-M-T31-NP (▷)(DECK A)	
D639	8-719-063-92	DIODE SLR325MC-M-T31-NP (◁)(DECK A)	
		< TRANSISTOR >	
Q617	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q619	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R726	1-249-401-11	CARBON 47 5% 1/4W	F
R727	1-249-403-11	CARBON 68 5% 1/4W	F
R728	1-247-807-31	CARBON 100 5% 1/4W	
R729	1-249-407-11	CARBON 150 5% 1/4W	F
R730	1-249-407-11	CARBON 150 5% 1/4W	F
R731	1-247-815-91	CARBON 220 5% 1/4W	
R732	1-249-411-11	CARBON 330 5% 1/4W	
R733	1-249-413-11	CARBON 470 5% 1/4W	F
R734	1-249-415-11	CARBON 680 5% 1/4W	F
R735	1-249-417-11	CARBON 1K 5% 1/4W	F
R736	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R737	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R738	1-247-843-11	CARBON 3.3K 5% 1/4W	
R739	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R740	1-247-807-31	CARBON 100 5% 1/4W	
R741	1-247-807-31	CARBON 100 5% 1/4W	
R742	1-247-807-31	CARBON 100 5% 1/4W	
R743	1-247-815-91	CARBON 220 5% 1/4W	
R744	1-247-807-31	CARBON 100 5% 1/4W	
R745	1-247-807-31	CARBON 100 5% 1/4W	
		< SWITCH >	
S655	1-762-196-21	SWITCH, TACT (▷)(DECK B)	
S656	1-762-196-21	SWITCH, TACT (◁)(DECK B)	
S657	1-762-196-21	SWITCH, TACT (▶▶)(DECK B)	
S658	1-762-196-21	SWITCH, TACT (◀◀)(DECK B)	
S659	1-762-196-21	SWITCH, TACT (■)(DECK B)	
S660	1-762-196-21	SWITCH, TACT (▮▮ PAUSE)	
S661	1-762-196-21	SWITCH, TACT (● REC)	
S662	1-762-196-21	SWITCH, TACT (CD SYNCHRO)	
S663	1-762-196-21	SWITCH, TACT (HIGH SPEED DUBBING)	
S664	1-762-196-21	SWITCH, TACT (▶▶)(DECK A)	
S665	1-762-196-21	SWITCH, TACT (◀◀)(DECK A)	
S666	1-762-196-21	SWITCH, TACT (■)(DECK A)	
S667	1-762-196-21	SWITCH, TACT (▷)(DECK A)	
S668	1-762-196-21	SWITCH, TACT (◁)(DECK A)	

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Ref. No.	Part No.	Description	Remark
*	1-663-994-11	TRANS BOARD ***********	
		< CONNECTOR >	
* CN501	1-564-527-11	PLUG, CONNECTOR 12P	
CN502	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
		< FUSE >	
⚠F501	1-532-505-31	FUSE, TIME-LAG (4A/250V) (GR10AV:E,EA,SP,JE,HK,IA)	
⚠F501	1-533-301-11	FUSE, GLASS CYLINDRICAL (DIA.5) (6.3A/125V)(D90AV/RX100AV: US,CND)	
		< FUSE HOLDER >	
FH501	1-533-233-21	HOLDER, FUSE (D90AV/GR10AV:E,EA,SP,JE,HK,IA/RX100AV: US,CND)	
FH502	1-533-233-21	HOLDER, FUSE (D90AV/GR10AV:E,EA,SP,JE,HK,IA/RX100AV: US,CND)	
		< RESISTOR >	
⚠R501	1-219-120-11	FUSIBLE 0.15 5% 1/4W	F
⚠R502	1-219-120-11	FUSIBLE 0.15 5% 1/4W	F
⚠R503	1-219-124-11	FUSIBLE 0.68 5% 1/4W	F
⚠R506	1-202-725-00	SOLID 3.3M 10% 1/2W (D90AV/RX100AV: US,CND)	
		< SWITCH >	
⚠S501	1-762-753-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR)(GR10AV: E,EA,SP,JE,HK,IA)	
		< TRANSFORMER >	
⚠T501	1-431-136-11	TRANSFORMER, POWER (AEP,UKG,EE,CIS)	
⚠T501	1-431-137-11	TRANSFORMER, POWER (US,CND)	
⚠T501	1-431-138-11	TRANSFORMER, POWER (E,EA,SP,JE,HK,MY,AUS,IA)	
⚠T501	1-431-138-21	TRANSFORMER, POWER (TH)	

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *************	
2	1-751-086-11	WIRE (FLAT CABLE)(13 CORE) (US,CND,E2,TH,AUS)	
2	1-773-012-11	WIRE (FLAT CABLE) (15 CORE) (Except US,CND,E2,TH,AUS)	
3	1-233-544-11	ENCAPSULATED COMPONENT (US,CND)	
3	1-233-545-11	ENCAPSULATED COMPONENT (E2,AUS,TH)	
3	1-233-546-11	ENCAPSULATED COMPONENT (E3,EA,HK,SP,JE,MY,IA)	
5	1-773-158-11	WIRE (FLAT TYPE) (21 CORE)	
6	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
7	1-769-948-11	WIRE (FLAT TYPE) (11 CORE)	
8	1-777-870-11	WIRE (FLAT TYPE) (19 CORE)	
⚠57	1-569-007-11	ADAPTOR, CONVERSION 2P (E3,IA)	
⚠57	1-569-008-11	ADAPTOR, CONVERSION 2P (EA,SP,JE)	
⚠57	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
⚠59	1-558-943-41	CORD, POWER (E,IA)	
⚠59	1-575-042-21	CORD, POWER (US,CND)	
⚠59	1-575-651-21	CORD, POWER (AEP,G,EE,CIS,EA,HK,SP,JE,MY)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠59	1-696-845-11	CORD, POWER (AUS)	
⚠59	1-751-326-21	CORD, POWER (TH)	
⚠59	1-751-529-11	CORD, POWER (UK)	
104	1-769-909-11	WIRE (FLAT TYPE) (9 CORE)	
105	1-777-869-11	WIRE (FLAT TYPE) (10 CORE) (Except US,CND)	
105	1-777-871-11	WIRE (FLAT TYPE) (8 CORE) (US,CND)	
106	1-777-936-11	WIRE (FLAT TYPE) (5 CORE) (Except US,CND)	
407	1-452-538-11	MAGNET	
408	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
⚠451	8-820-020-01	OPTICAL PICK-UP BLOCK KSS-213D/Q-NP	
452	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
FL601	1-517-618-11	INDICATOR, TUBE FLUORESCENT	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
M901	1-698-792-11	FAN, DC	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
⚠T501	1-431-136-11	TRANSFORMER, POWER (AEP,UK,G,EE,CIS)	
⚠T501	1-431-137-11	TRANSFORMER, POWER (US,CND)	
⚠T501	1-431-138-11	TRANSFORMER, POWER	(E,EA,SP,JE,HK,MY,AUS,IA)
⚠T501	1-431-138-21	TRANSFORMER, POWER (TH)	

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HARDWARE LIST

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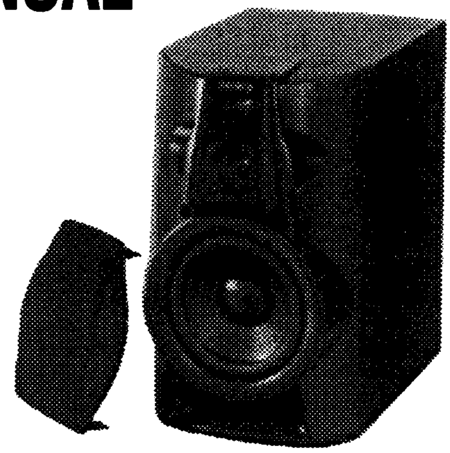
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#4	7-685-871-01	SCREW +BVTT 3X6 (S)
#5	7-685-872-09	SCREW +BVTT 3X8 (S)
#6	7-621-775-10	SCREW +B2.6X4
#7	7-621-255-15	SCREW +P2X3
#8	7-623-921-01	RING, RETAINING, CAPSTAN
#9	7-621-775-00	SCREW +B2.6X3
#10	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
#11	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#12	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S
#13	7-685-862-09	SCREW +BVTT 2.6X6 (S)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

SS-L80/L80H/L100V/L100VH

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model



These are speaker system in following Stereo Component system.
THE SYSTEM NAME FOR EACH SPEAKER

STEREO COMPONENT SYSTEM	SPEAKER SYSTEM
MHC-D60	SS-L80
MHC-RX80	
MHC-GR7 MHC-RX70	
MHC-GR7J	SS-L80H
MHC-D90AV	SS-L100V
MHC-RX100AV	
MHC-GR10AV	SS-L100VH

SPECIFICATION

Speaker System:	3-way, 3-unit bass-reflex type
Speaker Units:	Woofer : 15cm dia., cone type Center Tweeter : 5cm dia., cone type Super Tweeter : 2cm dia., cone type
Normal Impedances:	6 ohm (EXCEPT L80:US,CND/L100V/L100VH) 8 ohm (L80:US,CND/L100V/L100VH)
Dimensions:	Approx. 205 x 330 x 315 mm (w/h/d)
Mass:	Approx. 3.9kg net per speaker.

Design and specifications subject to change without notice.

3-WAY SPEAKER SYSTEM

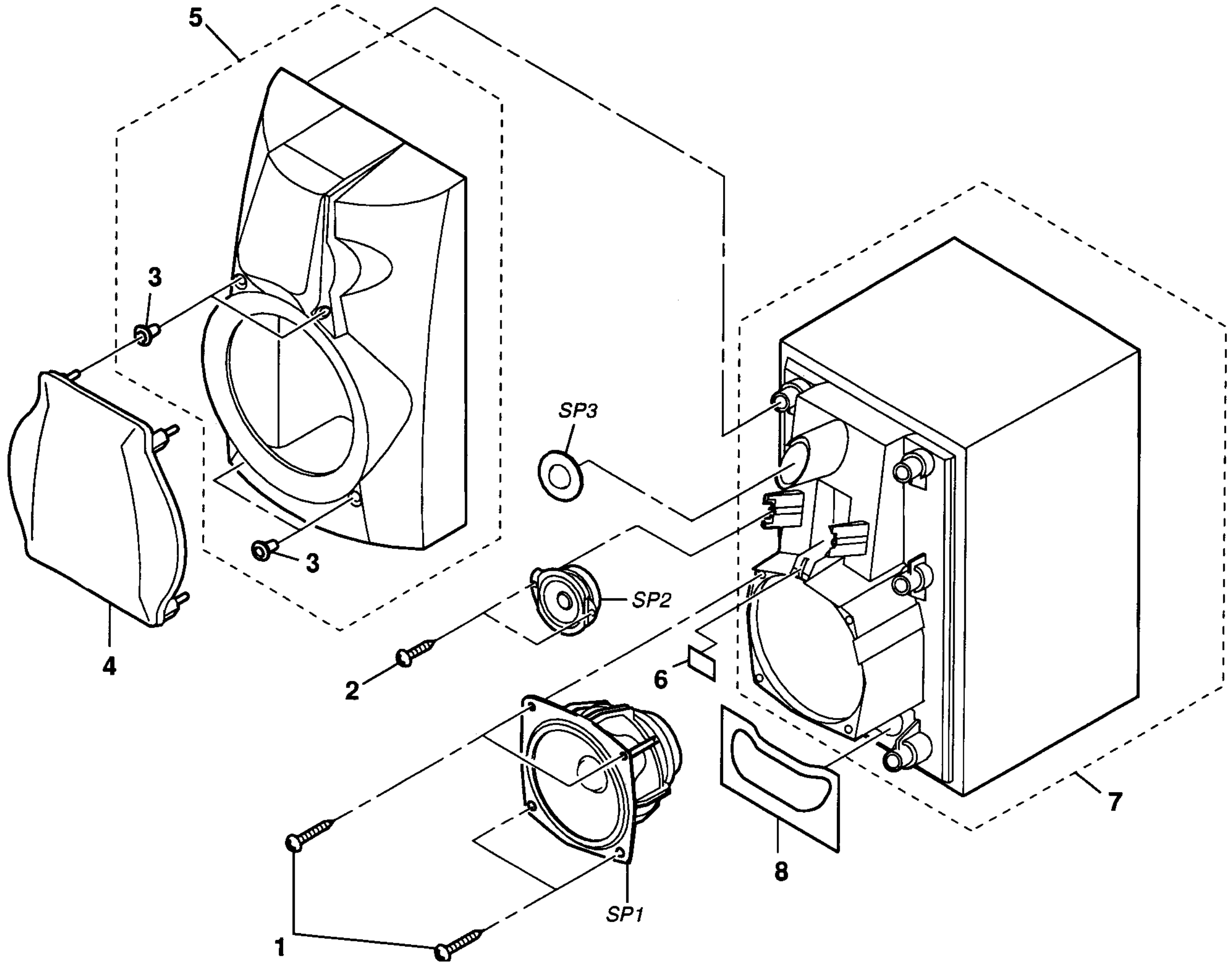
MICROFILM

SONY®

EXPLODED VIEW AND PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  G : German
  AED : Finland,Norway,Denmark,Sweden



Ref. No.	Part No.	Description	Remark
1	4-991-133-01	SCREW (4) (3.5X18), +BVTP	
2	4-991-132-01	SCREW (4) (3.5X12), +BVTP	
* 3	4-963-075-01	CATCHER	
4	X-4947-972-1	FRAME ASSY, GRILLE (EXCEPT L80H/L100VH)	
4	X-4948-156-1	FRAME ASSY, GRILLE (L80H/L100VH)	
5	X-4948-152-1	PANEL ASSY, FRONT (L80H/L100VH)	
5	X-4947-971-1	PANEL ASSY, FRONT (EXCEPT L80H/L100VH)	
6	9-911-840-XX	PACKING	
* 7	A-4384-384-A	CABINET ASSY, SPEAKER (L80/L100V:EXCEPT G,AED)	
* 7	A-4384-385-A	CABINET ASSY, SPEAKER (L80:G,AED)	
* 7	A-4384-430-A	CABINET ASSY, SPEAKER (L80H/L100VH)	
* 7	A-4384-435-A	CABINET ASSY, SPEAKER (L100V:G,AED)	

Ref. No.	Part No.	Description	Remark
* 8	4-988-096-01	PACKING	
SP1	1-505-520-11	SPEAKER (15CM) (L100V/L100VH)	
SP1	1-505-595-11	SPEAKER (15CM) (L80/L80H)	
SP2	1-505-518-11	SPEAKER (5CM)	
SP3	1-505-563-11	SPEAKER (2CM)	

****

ACCESSORIES & PACKING MATERIALS
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	1-769-306-11	CORD, SPEAKER (L80/L80H)	
	1-769-317-11	CORD, SPEAKER (L100V/L100VH)	
*	4-989-378-01	CUSHION (L80/L80H)	
*	4-989-390-01	CUSHION (L100V/L100VH)	

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Home A&V Products Company

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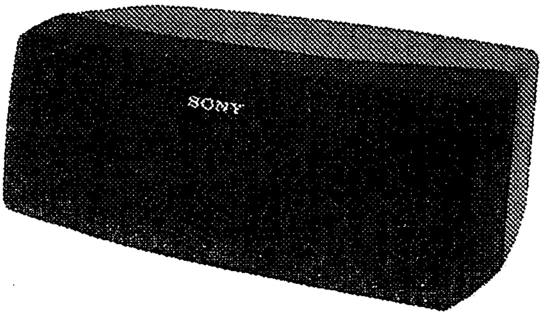
SS-CN101/CN101H

SERVICE MANUAL

SONY-08322

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



These are speaker systems in MHC-D90AV, MHC-GR10AV and MHC-RX100AV.

Photo : SS-CN101

SPECIFICATIONS

Speaker system	Full range speaker system Magnetically shielded type
Speaker units	10 cm, cone type
Enclosure type	Bass reflex
Rated impedance	8 ohms
Dimensions	Approx. 280 x 110 x 175 mm (11 $^1/_8$ x 4 $^3/_8$ x 7 in) (w/h/d)
Mass	Approx. 1.5 kg (3 lb 5 oz)

Design and specifications are subject to change without notice.

SPEAKER SYSTEM

MICROFILM

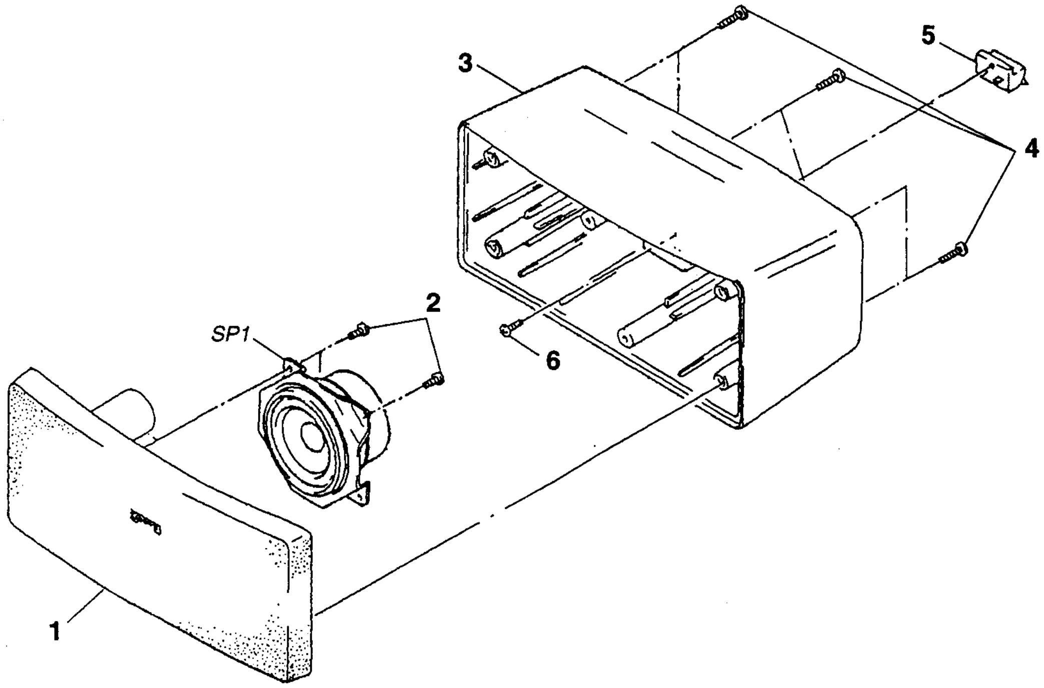
SONY®

2322

EXPLODED VIEW AND PARTS LIST

NOTE :

- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark
1	X-4948-300-1	PANEL ASSY, FRONT (CN101)	
1	X-4948-710-1	PANEL ASSY, FRONT (CN101H)	
2	7-685-660-11	SCREW +BVTP 4X10 TYPE2	
* 3	4-989-762-11	CABINET (CN101)	
* 3	4-992-600-01	CABINET (CN101H)	
4	7-685-663-79	SCREW +BVTP 4X16 TYPE2	
5	1-537-775-11	TERMINAL BOARD	
6	7-685-661-79	SCREW +BVTP 4X12 TYPE2	
SP1	1-505-312-11	SPEAKER (8 cm)	

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS ********************************	
	1-769-433-21	CORD, SPEAKER	
	4-972-322-01	FOOT (Y)	

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SS-SR101/SR101H

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
SS-SR101
German Model
East European Model
CIS Model
E Model
Australian Model
Tourist Model
SS-SR101H

SS-SR101/SR101H are surround speaker systems in MHC-RX100AV, MHC-GR10AV, MHC-RX90, MHC-GR8, MHC-RX80 and MHC-D90AV.

Photo : SS-SR101 (L-CH)

SONY-08256

SPECIFICATIONS

Speaker system	1-way, 1-unit bass-reflex type
Speaker units	Full-range : 8 cm, cone type
Nominal impedance	16 ohms
Dimensions (w/h/d)	Approx. 205 x 95 x 24 mm
Mass	Approx. 1.1 kg net per speaker

Design and specification subject to change without notice.

SURROUND SPEAKER SYSTEM

MICROFILM

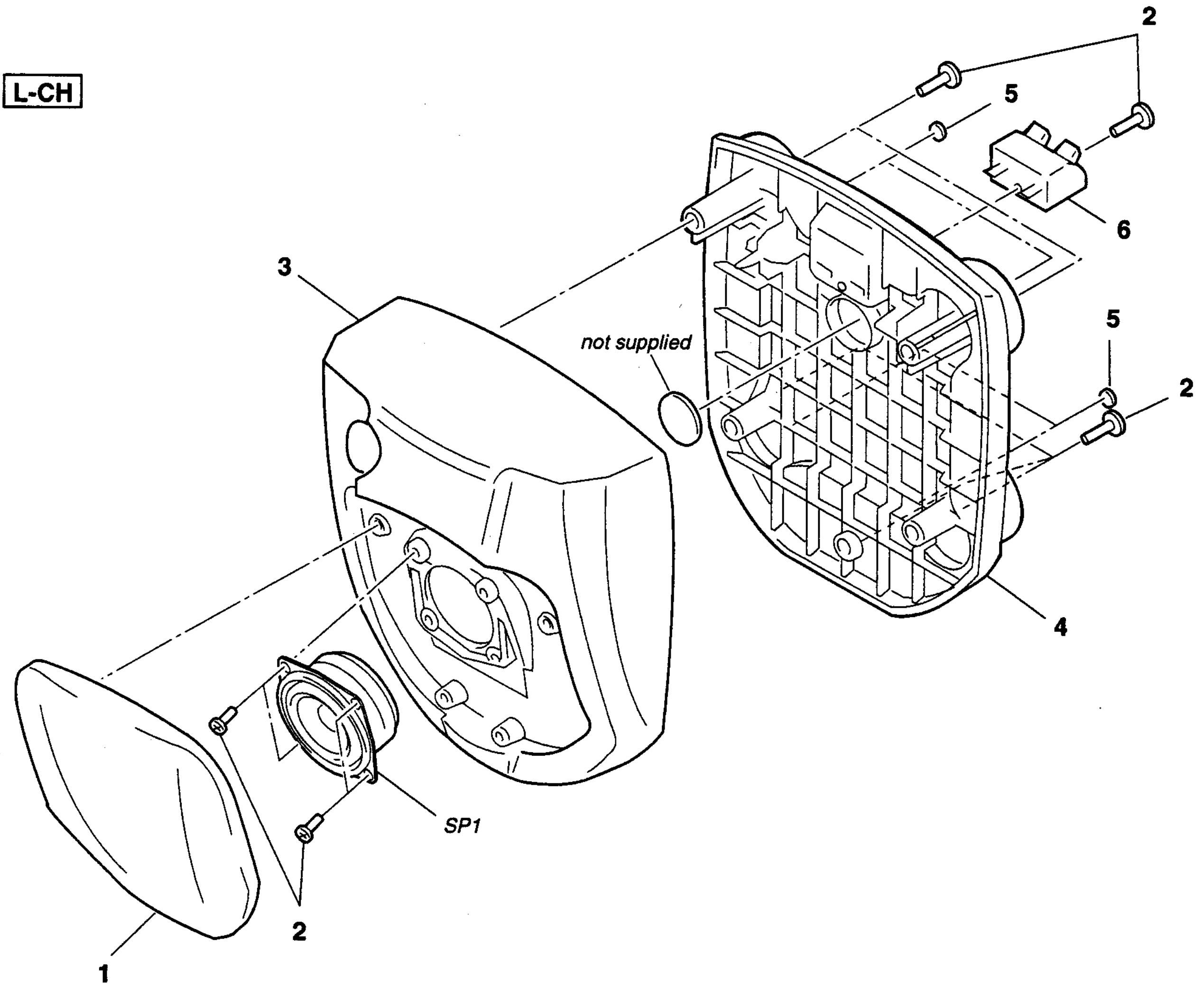
SONY®

8256

EXPLODED VIEW AND PARTS LIST

NOTE :

- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark
1	X-4947-893-1	FRAME ASSY, GRILLE (SR101)	
1	X-4948-594-1	FRAME ASSY, GRILLE (SR101H)	
2	7-685-661-29	SCREW +BVTP 4X12 TYPE2 SLIT	
* 3	4-987-904-01	CABINET (L) (SR101)	
* 3	4-987-904-11	CABINET (L) (SR101H)	
* 3	4-988-412-01	CABINET (R) (SR101)	
* 3	4-988-412-11	CABINET (R) (SR101H)	
* 4	4-987-905-01	BASE (L) (SR101)	
* 4	4-987-905-11	BASE (L) (SR101H)	
* 4	4-988-415-01	BASE (R) (SR101)	
* 4	4-988-415-11	BASE (R) (SR101H)	
5	4-982-339-01	FOOT	
6	1-537-775-11	TERMINAL BOARD	
SP1	1-505-302-11	SPEAKER (8cm)	

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ACCESSORIES & PACKING MATERIALS

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	1-769-433-11	CORD, SPEAKER

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HCD-D90AV/GR10AV/ RX100AV

8345

SONY

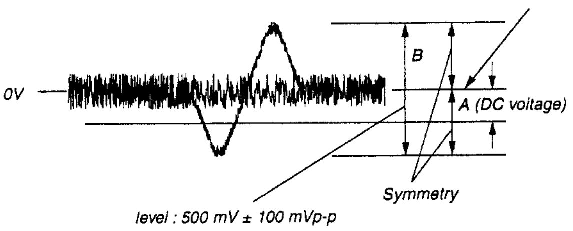
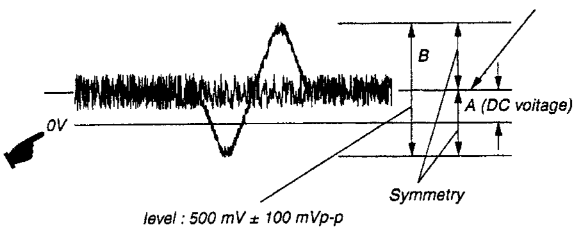
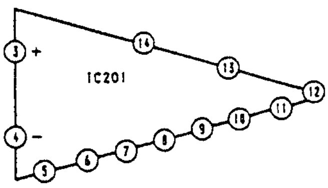
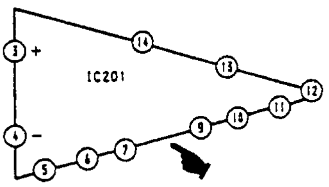
US Model
HCD-D90AV/RX100AV
Canadian Model
AEP Model
UK Model
HCD-RX100AV
E Model
Australian Model
Tourist Model
HCD-GR10AV

SERVICE MANUAL

CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

Page	INCORRECT	CORRECT
18	E-F Balance (1 Track Jump) Check • $\frac{A-B}{2(A+B)}$ x 100 = less then ± 7 (%) • A + B = 500 ± 100 mVp-p *1 track jump waveform*  Center of the waveform B 0V A (DC voltage) Symmetry level : 500 mV ± 100 mVp-p	E-F Balance (1 Track Jump) Check • $\frac{A}{B}$ x 100 = less then ± 7 (%) ☛ • B = 500 ± 100 mVp-p ☛ *1 track jump waveform*  Center of the waveform B A (DC voltage) 0V Symmetry level : 500 mV ± 100 mVp-p
65	SCHEMATIC DIAGRAM • IC PIN LAYOUT STK4231MK2, STK4221MK2  3 + 14 IC201 13 12 4 − 11 10 9 8 7 6 5	SCHEMATIC DIAGRAM • IC PIN LAYOUT STK4231MK2, STK4221MK2  3 + 14 IC201 13 12 4 − 11 10 9 7 6 5

(SPM-98002)

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